

Value as a Moderator in Subjective Well-Being

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ABSTRACT We investigated individual differences in the processes of subjective well-being (SWB). There were considerable individual differences in the domain that was most strongly associated with global life satisfaction. Individuals also differed significantly in the types of activities that they found satisfying. Moreover, these individual differences in the patterns of SWB were systematically related to value orientations. A 23-day daily diary study revealed that intraindividual changes in satisfaction were strongly influenced by the degree of success in the domains that individuals value. The present findings highlight the meaningful individual differences in the *qualitative* aspects of subjective well-being.

Subjective well-being (SWB) is an individual's cognitive evaluation of life, the presence of positive emotions, and the lack of negative emotions (Diener, 1994). Over the last 15 years, SWB researchers have found surprisingly strong cross-situational consistency and temporal stability for mean levels of SWB (e.g., Diener & Larsen, 1984; Diener, Sandvik,

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Pavot, & Fujita, 1992; Headey & Wearing, 1989). Individuals who experience high levels of positive affect in social situations are also likely to experience high levels in nonsocial situations. Adults who evaluate their lives as satisfying at Time 1 also tend to evaluate their lives as satisfying weeks, months, or even years later. Furthermore, these individual differences in SWB are consistently and systematically related to extraversion and neuroticism (e.g., Costa & McCrae, 1980; Emmons & Diener, 1985; McCrae & Costa, 1991). These findings constitute one of the most extensive construct validations and nomological networks in personality research, and clarify key relations among important constructs, measures, and operationalizations of personality and SWB (see Diener, Suh, Lucas, & Smith, 1997, for a review).

By emphasizing the stability of interindividual differences, however, SWB researchers often neglect changes in SWB that occur *within* individuals. For example, suppose Steve and Jim are equally satisfied with their lives, and on average they experience the same amounts of positive and negative emotions. However, Steve typically feels ecstatic when he beats his friends in racquetball, whereas Jim feels happy when he gets praised by friends. Although Steve and Jim have the same mean level of SWB, the patterns of their emotional experiences and life satisfaction are very different. Information on individual differences in the mean level of SWB does not provide sufficient information on individual differences in the *qualitative* aspects of SWB. In order to understand why individuals experience and report positive and negative SWB, we must explore patterns of emotional experiences and life satisfaction judgments. The present article examines the roles of values in determining the patterns of intraindividual and interindividual variation of SWB.

Intraindividual and Interindividual Differences in SWB

Moderating Processes of SWB

Mischel and Shoda (1995) highlighted the importance of a process-oriented approach in personality research, stating that “clues about the person’s underlying qualities—the construals and goals, the motives and passions, that drive individuals—may be seen in when and where a type of behavior is manifested, not only in its overall frequency” (p. 248). Using this approach, Shoda, Mischel, and Wright (1994) found system-

atic “if . . . then . . .” situation–behavior relations in children’s aggressive behavior. For instance, Child A tends to get aggressive when teased by peers, whereas Child B tends to get aggressive when scolded by adults. This important pattern of aggressive behavior is largely ignored by personality researchers from the trait approach. Trait-oriented researchers tend to stress universal dimensions by which they can rank-order individuals across situations, and attempt to accurately measure stable interindividual differences in the target dimensions, using multiple methods, measures, and aggregation. Although overall levels of aggression provide important information on general tendencies, the “if . . . then . . .” relations provide additional information about the child’s individuality and generate further questions regarding situation-specific courses of aggressive behavior.

Recent research using the daily diary method has also found systematic “if . . . then . . .” relations between situations and emotional experiences. Emmons (1991), for instance, had 48 college students record daily events and emotional experiences for 21 consecutive days. Students reported two positive and two negative events each day. Emmons coded these life events into the following categories: Achievement, Interpersonal, Health-Related, Enjoyment/Relaxation, Impersonal, and Other. Emmons then examined how students’ emotional reactions to these events were mediated by 15 personal strivings they had listed prior to this daily study. Within-subject analyses revealed that the stronger one’s Achievement orientation, the stronger the intensity of both positive and negative emotional reactions to Achievement-related events. Likewise, the stronger one’s Affiliation and Intimacy motives, the stronger the intensity of negative emotional reactions to negative interpersonal events. Emmons’s (1991) findings suggest that the intensity of emotional experiences is moderated by the type of personal strivings individuals pursue in their daily lives.

Similarly, Cantor et al. (1991) documented 54 female college students’ life tasks, daily events, and emotional experiences for 15 days, using the experience sampling method. At the beginning of the study, participants generated 10 life tasks they were working on, and then rated these tasks for rewardingness, difficulty, and outcome evaluation. When signaled by an alarm during the day, participants recorded the situation they were in and rated their emotional states at the time. At the end of each day, they rated the relevance of the situations to the life tasks. Within-subject analyses revealed that when participants were in situations related to

important life tasks, they tended to experience more intense and more positive emotions. This outcome, coupled with Emmons's (1991) findings, suggests that patterns of emotional experiences are influenced by daily events and their relation to important life tasks and personal strivings.

Direct Relations Between Values and SWB

Whereas Emmons (1991) and Cantor et al. (1991) emphasize the moderating effects of goal constructs on daily events and emotional experiences, Kasser and Ryan (1993, 1996) maintain that the type of goals individuals pursue influences mean levels of well-being. In three studies that included both college students and noncollege students, Kasser and Ryan (1993) found that the importance of financial success for one's goals was negatively correlated with self-actualization and vitality, and positively correlated with depression and anxiety. Conversely, the importance of self-acceptance and community feelings was positively related to self-actualization and vitality. Furthermore, Kasser and Ryan (1996) found that individuals who pursue extrinsic goals, such as financial success, social recognition, and physical attractiveness, tended to exhibit more physical symptoms as well as low self-actualization, low vitality, and high depression and anxiety.

Based on self-determination theory (Deci & Ryan, 1985), Ryan, Sheldon, Kasser, and Deci (1996) posit that activities that reflect intrinsic needs such as personal growth, satisfying relationships, and community contribution are more satisfying than activities reflecting extrinsic needs such as social recognition and physical attractiveness. Sheldon, Ryan, and Reis (1996) examined this hypothesis in a 14-day daily diary study of 60 college students. For each day, the participants listed the three activities in which they spent the most time, and rated them in terms of autonomy (i.e., to what degree activities were initiated for intrinsic reasons rather than external reasons) and competence (i.e., how effective they felt at that activity). The participants also recorded positive and negative emotional experiences, vitality, and physical symptoms on each day. Analyses of intraindividual variations, using the hierarchical linear model, revealed that daily well-being of the participants was predicted from the degree of autonomy and competence the activities reflected.

In a semester-long longitudinal study, Sheldon and Kasser (in press) found that progress toward intrinsic goals (i.e., the goals related to self-acceptance, personal growth, intimacy, friendships, and social

contribution) was more strongly related to positive changes in well-being than progress toward extrinsic goals (i.e., the goals related to physical attractiveness, popularity, recognition, and financial success). Sheldon and Kasser argued that activities are linked to individuals' positive daily well-being more strongly when these activities reflect intrinsic needs. For most people, activities related to personal growth, relationships, and community contribution seem to be more satisfying than those related to social fame and physical attractiveness. It should be noted, however, that Sheldon, Ryan, Kasser, and their colleagues did not examine whether these activities are equally intrinsically satisfying across individuals. It is possible that some people find activities related to societal contribution (e.g., volunteer work) intrinsically satisfying, whereas others do not. In other words, although on average pursuit of intrinsic goals may be more conducive to a higher level of psychological well-being than that of extrinsic goals, there might be important individual differences in the degree to which progress toward intrinsic goals is related to positive changes in well-being. Specifically, doing volunteer work may be more satisfying for those who value Social Equality than those who value Power. As a consequence, volunteer activities may be related to a better sense of well-being for individuals who value Social Equality, but not for those who stress Power.

The existence of universally pleasurable activities must not be taken for granted in any study of satisfaction or "optimal experience." For instance, Csikszentmihalyi (1975) believes that the highly pleasurable experience of "flow" (i.e., a state of intense positive emotion and increased functioning) follows involvement in an activity that is optimally challenging, has clear goals, and has immediate feedback. Again, it is unclear whether certain activities are universally linked to flow experiences, or if there are systematic individual differences in the activities that elicit flow experiences. To extend our understanding of processes in SWB, we should take a closer look at individuals' goals, values, and the type of activities they find satisfying.

Beyond Intraindividual Patterns of Emotional Experiences

Studies of intraindividual variations in emotional experiences (e.g., Cantor et al., 1991; Emmons, 1991) attempt to understand courses of happiness and changes in levels of well-being within the individual.

However, these patterns of intraindividual variation can also inform our study of interindividual differences in the processes of SWB. The degree to which global life satisfaction is related to domain satisfaction ratings or self-esteem might systematically differ across individuals. Thus far, however, differential relations among central constructs in SWB have been explored only in cross-cultural and developmental studies of SWB. Diener and Diener (1995), for instance, found that self-esteem was a stronger predictor of life satisfaction in individualist nations than in collectivist nations. Suh, Diener, Oishi, and Triandis (1998) found that emotions were more highly correlated with global life satisfaction in individualist nations, whereas norms were more strongly related to life satisfaction in collectivist nations. Presumably, different criteria are used to judge satisfaction with one's life in different cultures, and these criteria are based on the value priorities of the culture being studied. Autonomy and internal attributes, including emotions, are stressed in individualist nations, whereas norms and duty are emphasized in collectivist nations (Triandis, 1995). The stronger relation among life satisfaction, emotions, and self-esteem may reflect the greater importance of these internal attributes among individualist cultures.

Nomological relations between domain satisfactions and global life satisfaction may also shift across developmental phases (Cantor & Blanton, 1996; Cantor & Harlow, 1994; Cantor & Sanderson, in press; Cantor & Zirkel, 1990). Cantor and Sanderson (in press) posit that active participation in personally and culturally valued life tasks enhances well-being, and that these life tasks change across the life span. For example, Harlow and Cantor (1996) found that social participation was a stronger predictor of life satisfaction for retirees than for elders who still hold a job. Social participation is more important for life satisfaction during stages when the opportunity for social interaction is limited by the loss of a job. In short, satisfaction with the domain relevant to the salient life task at the time is more strongly related to global life satisfaction than satisfaction with the domain irrelevant to the life task.

Value as a Moderator in SWB

Based on data collected from 40 countries, Schwartz and Sagiv (1995) postulated the existence of 10 universal values (i.e., Power, Achievement, Hedonism, Stimulation, Self-Direction, Universalism, Benevolence, Tradition, Conformity, and Security). Schwartz's (1992) theory of values

is at present the most comprehensive theory of values, and has been widely used in cross-cultural studies (e.g., Schwartz & Sagiv, 1995; Triandis, McCusker, & Hui, 1990) as well as in within-culture studies (e.g., Feather, 1996; Sagiv & Schwartz, 1995). Schwartz and Sagiv defined Benevolence as preservation and enhancement of the welfare of people with whom one is in frequent personal contact (e.g., true friendship, helpful, and loyal). Thus, satisfaction with social life characterizes the value of Benevolence. Similarly, Schwartz and Sagiv defined Achievement as personal success through demonstrating competence according to social standards (e.g., successful, capable, and ambitious). Satisfaction with grades, therefore, represents the value of Achievement. Furthermore, satisfaction with family exemplifies the value of Conformity, which is defined by duty and honoring parents and elders (see Schwartz & Sagiv, 1995, for definitions of the other values).

In the present study, we propose the value-as-moderator model, based on Schwartz's (1992) theory of values, to integrate intraindividual, developmental, and cross-cultural variations in the processes of SWB discussed above (see Figure 1). This model assumes that individuals' values are influenced by their culture and may change across developmental stages. Salient values at the time, in turn, influence determinants of global life satisfaction. For instance, individuals in an individualist culture tend to value Autonomy. Therefore, it is predicted that global life satisfaction would be more strongly related to personal achievements and self-esteem in individualist cultures than in collectivist cultures. In young adulthood, building an intimate relationship is one of the main life tasks. For individuals in this life stage, romantic relationship should be valued, and therefore should be a strong predictor of global life satisfaction. Similarly, the value-as-a-moderator model predicts that global life satisfaction of individuals who value Benevolence would be strongly related to their satisfaction with social relationships.

With regard to intraindividual variation, this model posits that individuals who stress values of Achievement would feel more satisfied on days when they receive positive feedback on the job or at school. In other words, the more one values Achievement, the stronger the relation between daily satisfaction and daily achievement satisfaction for that individual. Similarly, the more one values Benevolence, the stronger the relation between daily satisfaction and daily social life satisfaction.

Furthermore, the value-as-a-moderator model predicts that people gain a sense of satisfaction out of activities congruent with their values.

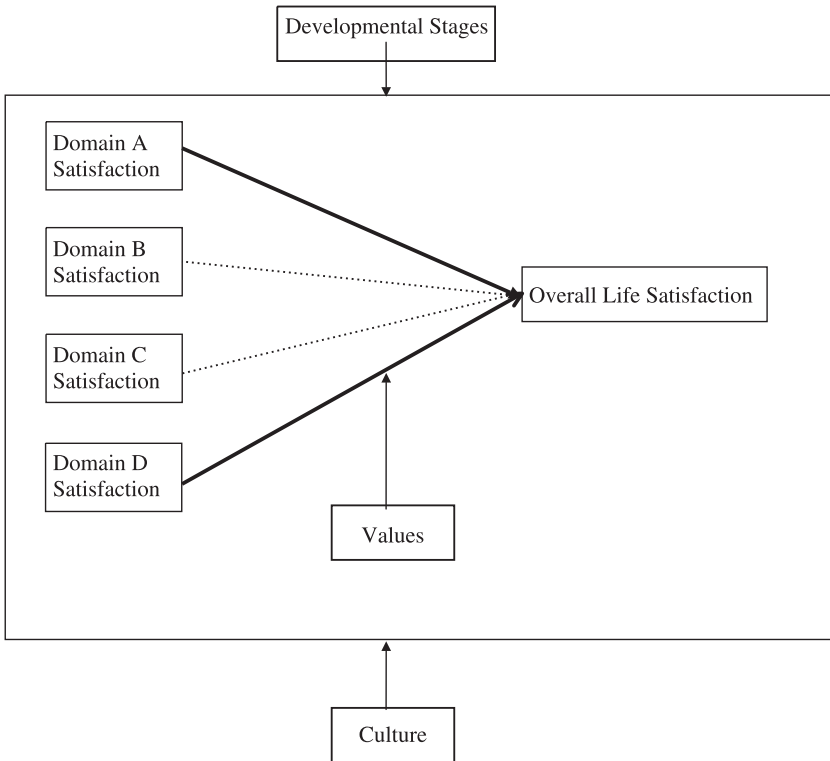


Figure 1.
Values Influencing the Sources of Subjective Well-Being.

Note. Bold lines indicate stronger relations between variables.

People with high Power-orientation, for instance, should gain a stronger sense of satisfaction out of Power-related activities such as “making a lot of money” and “buying expensive clothes” than those with low Power-orientation. Likewise, the more one values Universalism (i.e., egalitarianism, environmental protection), the more satisfaction he or she will get out of Universalism-related activities such as “recycling” and “participating in a fund-raising for people and families with AIDS.”

Summary

Previous research on SWB has shown that personality traits such as extraversion and neuroticism account for a substantial amount of

interindividual variance in SWB. However, these studies are limited in their ability to explain the underlying processes of SWB. In this regard, studies on intraindividual processes provide important information on the patterns of relations between daily activities and emotional experiences. Unfortunately, to this date, there has not been an explicit effort to extend our understanding of intraindividual variations of daily emotional experiences to interindividual differences in the patterns of relations among the key constructs of SWB. As a result, theoretical attempts to integrate intraindividual, interindividual, developmental, and cross-cultural variations in the processes of SWB are lacking. The goals of the present investigation are (1) to investigate the moderating roles of values in intraindividual patterns of relations between daily domain satisfactions and daily satisfaction; (2) to examine the moderating roles of values in patterns of relations between domain satisfactions and global life satisfaction at the interindividual level; and (3) to clarify individual differences in the types of activities from which people gain a sense of satisfaction. The present study extends previous process-oriented research on emotional experiences to larger nomological relations in SWB, and is a first step in generating a synthetic framework for intraindividual, interindividual, developmental, and cross-cultural variations in SWB research.

METHOD

Participants

Sample 1 consists of 121 introductory psychology students at the University of Illinois (58 male, 63 female; 90 White Americans, 5 Black Americans, 6 Hispanic Americans, and 20 Asian Americans). Seventy-two percent of the participants were 17- or 18-years-old, 16 percent of them were 19-years-old. Participants received course credit by participating in the experiment. They participated three times over a semester with a 3-week interval between the sessions. Each time, they indicated their life satisfaction and domain satisfaction. At Time 3, participants answered the value scale described below.

Sample 2 consists of 151 University of Illinois students (41 male, 110 female; 114 White Americans, 6 Black Americans, 9 Hispanic Americans, 17 Asian Americans) enrolled in an advanced psychology course on personality and well-being. Sixty-four percent of the participants were 20- or 21-years-old at the beginning of the study, and 20 percent of them were 18- or 19-years-old. Because of the prerequisite requirements for this course, no first-year students participated in this study. Participants partially fulfilled a class requirement by

participating in the experiment. They participated three times over a semester with a 3-week interval between the sessions. Sample 2 participants participated in all experiments, whereas Sample 1 participants did not participate in the daily diary study and satisfying activity ratings.

Measures

Subjective Well-Being measures. Global life satisfaction was measured by the Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985). The SWLS consists of five statements, to which respondents are asked to indicate their degree of agreement, using a 7-point scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The total SWLS score ranges from 5 to 35. Its psychometric properties were proven to be adequate in the United States (Pavot & Diener, 1993). To measure the frequency of Positive Affect (PA) and Negative Affect (NA), we selected eight emotion words based on the structure of affect proposed by Diener, Smith, and Fujita (1995). Four of these words (affection, joy, contentment, and pride) reflected PA and four (fear, anger, sadness, and guilt) reflected NA. The participants indicated how often they had experienced each of the eight emotions during the past month using a 7-point scale, ranging from 1 (*never*) to 4 (*about half of the time*) to 7 (*always*).

Domain satisfaction. The participants answered how satisfied they were with each of the five domains of their lives: romantic relationship, finances, grades, family, and social life and friends. Responses ranged from 1 (*extremely dissatisfied*) to 4 (*neutral*) to 7 (*extremely satisfied*). We asked respondents to skip the items that were not applicable (e.g., if they did not have family, romantic partners, their own finances). About 20% of Sample 1 participants indicated that satisfaction with romantic relations and satisfaction with finances were not applicable; about 10% of Sample 2 participants indicated that satisfaction with finances were not applicable. Because of these missing data, we used three domains in our analyses: satisfaction with “grades,” “family,” and “social life and friends.”

Value priorities. Value priorities were measured by the Pairwise Comparison Value Survey (PCVS; Oishi, Schimmack, Diener, & Suh, 1998). The PCVS consists of 45 pairwise comparisons, based on the 10 value types postulated by Schwartz and Sagiv (1995). The participants rated all possible pairs among the 10 values (see Appendix B), on the degree to which they stress one value type over the other. For instance, participants rated the degree to which Conformity is more important than Power. Adequate test–retest reliability (mean = .67 over a 16-day interval) and concurrent validity (mean = .59 controlling for the general response sets) with the Schwartz Value Survey (Schwartz, 1992) are reported in Oishi et al. (1998).

Satisfying Activity Scale (SAS). In order to assess satisfying activities, we developed a new scale. The final SAS consists of 32 items, covering various activities. The first list of the 56 SAS items was originally written so as to include a wide range of activities representing Schwartz's (1992) value types. To avoid redundancy, the number of items was reduced to 32 before this study (i.e., four items for each of the eight values: Power, Achievement, Hedonism/Stimulation, Self-Direction, Universalism, Benevolence, Tradition/Conformity, and Security). The participants rated the degree to which they gained a sense of satisfaction and happiness by engaging in each of the 32 activities. Response options ranged from 1 (*not at all*) to 4 (*somewhat*) to 7 (*extremely*).

We first performed a principal axis factor analysis. Based on the eigenvalue and scree test, we extracted five factors using Varimax rotation. We examined the communality of each item, and removed the items with less than .30 communality. Low communalities indicate that items did not load strongly on any of the five factors. We then repeated the factor analysis with 28 remaining items. We next removed items that had loadings greater than .30 on more than one factor, and had a difference between the loadings of less than .10. Six items were removed based on this criterion. The final factor loadings of the 22 items retained are shown in Appendix A. The first factor consists of activities related to Benevolence (e.g., showing that you care about others) and Conformity (e.g., following rules set by a group you belong to). The second factor consists of items representing Achievement (e.g., making a conscious effort to achieve your goals). The third factor consists of Universalism-related activities (e.g., attending a rally to support conservation of nature). The fourth factor consists of Power-related activities (e.g., buying expensive clothes). The fifth factor consists of activities related to Hedonism and Stimulation (e.g., going to a loud party). Internal consistency coefficients for the five subscales were also acceptable, ranging from .59 to .79, with the median of .74.

Daily satisfaction. For 23 consecutive days, the participants rated at the end of each day how good or bad that day was, using a 9-point scale, ranging from 1 (*extremely bad*) to 5 (*neutral*) to 9 (*extremely good*). After several filler items (e.g., How much of the day were you hungry? How many drinks of alcohol did you have today?), participants rated how satisfied they were with two domains on that day. Specifically, we asked "How satisfied were you today with your achievements?" and "How satisfied were you today with your social life?" Participants rated these items using a 7-point scale, ranging from 1 (*extremely dissatisfied*) to 4 (*neutral*) to 7 (*extremely satisfied*). Participants submitted each daily report the following morning with the exception of weekends. Daily reports from Fridays, Saturdays, and Sundays were submitted on Mondays.

RESULTS

Overview

We present three types of analyses. First, we present the results of intraindividual variations in daily satisfaction based on a 23-day daily diary study. Second, we present the results of the relations between values and the types of satisfying activities. Finally, we present the results of interindividual differences in the relation between domain satisfactions and global life satisfaction.

Within-Individual Analyses: Daily Diary Study

We examined first whether values of Achievement and Benevolence are related to the level of mean daily satisfaction. Next, we examined whether individuals were satisfied on days when they were successful in the achievement and social life domains. Finally, based on the value-as-a-moderator model, we examined whether the link between daily achievement satisfaction and daily satisfaction would be stronger among individuals who value Achievement than those who do not value Achievement. Similarly, we examined whether the link between daily social life satisfaction and daily satisfaction would be stronger among individuals who value Benevolence than those who do not value Benevolence.

To test these hypotheses, we adopted a hierarchical linear model (HLM) approach (Bryk & Raudenbush, 1992), using the HLM/2L program. The HLM allows a more stringent test of whether higher level variables explain the degree of relations among the variables within-individual, without losing the lower level variation (see Bryk & Raudenbush, 1992, for details). Conceptually, it is equivalent to the following. First, day satisfaction was regressed on satisfaction with achievement and social life on that day for each individual (level 1). This analysis examined the degree to which satisfaction with achievement and social life on each day predicted day satisfaction within each individual. Next, the level 1 regression coefficients of achievement and social life, respectively, were regressed on person level variables, including sex, Achievement values, and Benevolence values (i.e., level 2). The level 2 analysis examined the degree to which person level variables predicted the variations in level 1 regression slopes of achievement and social life.

The HLM analysis for the intercept (see the first section of Table 1) indicated that interindividual differences in mean daily satisfaction was

Table 1
 Hierarchical Linear Model: Predicting the Day Level Regression Slopes from Person Level Variables, Sex, Achievement Values, and Benevolence Values

Fixed Effects	Coefficient	SE	T-ratio
Model for Intercept (β_0)			
Intercept, γ_{00}	6.122	.19	32.21**
Sex, γ_{01}	.008	.106	0.07
Achievement Value, γ_{02}	-.006	.006	-1.06
Benevolence Value, γ_{03}	-.001	.006	-0.14
Model for Achievement slope (β_1)			
Intercept, γ_{10}	.310	.087	3.57**
Sex, γ_{11}	-.037	.049	-0.77
Achievement Value, γ_{12}	.005	.002	2.13*
Model for Social Life slope (β_2)			
Intercept, γ_{20}	.417	.105	3.97**
Sex, γ_{21}	.076	.059	1.29
Benevolence Value, γ_{22}	.005	.002	1.79*

Note. $N = 146$. The model specified was as follows:

Level 1 (Day): Day satisfaction = $\beta_0 + \beta_1$ *satis w/achievement on that day + β_2 *satis w/social life on that day. Level 2 (Person): $\beta_1 = \gamma_{10} + \gamma_{11}$ *(Sex) + γ_{12} (value of Achievement) + e. $\beta_2 = \gamma_{20} + \gamma_{21}$ *(Sex) + γ_{22} *(value of Benevolence) + e.

Average Ordinary Least Square Regression Model at Level 1: Day Satisfaction = 6.12 + .266*Achievements + .636*Social Life + e.

* $p < .05$. ** $p < .01$ (one-tailed test was used because the direction was predicted by the model).

not accounted for by sex, values of Achievement, nor values of Benevolence. Whereas Kasser and Ryan (1993) found the positive relation between values of Benevolence (affiliation aspiration) and psychological well-being, the present daily diary study did not show any direct relation between values of Benevolence and daily satisfaction. Next, Sheldon et al. (1996) found that individuals were more satisfied on days when they were successful in competence and autonomy domains. Replicating Sheldon et al.'s (1996) findings, individuals in our study felt more satisfied on days when they were successful in achievement ($\beta = +.31$, $p < .01$) and social life ($\beta = +.42$, $p < .01$) domains. Finally, the HLM analyses for the slope for daily achievement satisfaction (see the second section of Table 1) indicated that daily satisfaction with achievement was a significantly stronger predictor of daily satisfaction for individuals high

in Achievement values than for those low in Achievement values. Likewise, the HLM analyses for the slope for daily social life satisfaction indicated that daily satisfaction with social life was a significantly stronger predictor of daily satisfaction for those high in Benevolence than for those low in Benevolence values (see the third section of Table 1). On the other hand, there was no gender difference in how much social life and achievement on the day accounted for daily satisfaction. The HLM analysis, therefore, shows that intraindividual processes of satisfaction, or day-to-day satisfaction, are influenced by the degree of success in the domain individuals value most, supporting the value-as-a-moderator model.

Values and Types of Activities

We tested the relations between value priorities and sources of life satisfaction by examining the extent to which individuals gain a sense of satisfaction from various types of activities. The value-as-a-moderator model predicts that value-congruent activities are more satisfying than value-incongruent activities because it assumes that the relation between participation in activities and a sense of satisfaction will be moderated by individuals' value orientations. More specifically, we predicted that the more individuals value Power, the more satisfaction they should get from Power-related activities. Similarly, we predicted that the more they value Achievement, the more satisfaction they should get from Achievement-related activities. On the other hand, the self-determination theory of well-being (Ryan et al., 1996) predicts that Universalism-related activities would be positively correlated with any values, because it assumes that intrinsic activities are satisfying for everyone. Also, Ryan et al. (1996) predict that Universalism-related activities would be positively correlated with SWB measures, whereas Power-related activities would be negatively correlated with SWB because (they argued) individuals who enjoy Universalism-related activities (e.g., volunteer activities) should be higher in well-being than those who enjoy Power-related activities (e.g., buying expensive clothes).

In support of the value-as-a-moderator model, Table 2 shows convergence between values and the type of activities people enjoy. The more individuals valued Power, the more satisfaction they gained out of activities related to Power. Also, the more individuals stressed Achievement values, the more satisfaction they got out of Achievement-related

Table 2

Correlations Among Pairwise Comparison Value Survey (PCVS), Satisfying Activity Scale (SAS), Satisfaction With Life Scale (SWLS), Positive Affect (PA), and Negative Affect (NA).

	PCVS										SWB		
	Pow	Ach	Hed	Stim	Self	Univ	Bene	Trad	Con	Sec	SWLS	PA	NA
<i>SAS</i>													
Pow	.35**	.30**	.06	-.05	-.29**	-.31**	-.08	-.06	.08	.01	-.02	.15	.15
Ach	.13	.42**	-.17*	-.00	-.03	-.12	-.12	.00	.02	-.06	.10	.35**	-.10
Hed/Stim	-.11	-.20*	.41**	.41**	-.02	.03	.28**	-.33**	-.23**	-.22*	.13	.24**	-.16
Univ	-.24**	-.08	-.23**	-.03	.05	.52**	.08	-.05	-.12	-.10	.01	.19*	.04
Bene/Conf	-.02	.00	-.11	-.14	-.28**	-.10	.22**	.13	.18*	.13	.13	.35**	.07
<i>SWB</i>													
SWLS	-.07	.13*	.06	.05	-.03	-.02	.03	-.01	-.04	-.06	—	.55**	-.50**
PA	.00	.24**	-.03	-.03	.01	-.05	.04	-.07	-.01	-.05	—	—	-.27**
NA	.13*	-.09	-.05	-.06	.06	-.13*	-.07	.05	.06	.09	—	—	—
Family	.00	.14*	.01	-.00	-.03	-.10	.03	-.05	.06	.01	.47**	.27**	-.23**
Grades	-.08	.09	-.04	.00	.05	.05	.03	-.03	-.01	-.03	.31**	.13*	-.32**
Social	-.03	.16*	.05	-.05	.00	-.07	.08	.02	-.05	-.05	.51**	.57**	-.35**
<i>M</i>	-6.86	3.30	6.21	-1.38	6.32	-2.21	7.61	-7.33	-5.18	-4.48	23.36	4.50	2.75
<i>SD</i>	9.19	5.87	6.11	6.33	5.83	9.02	5.97	7.69	7.41	5.88	6.13	.91	.59

Note. $N = 136$ for the SAS. $N = 256$ to 271 for all other scales. Pow = Power. Ach = Achievement. Hed = Hedonism. Stim = Stimulation. Self = Self-Direction. Univ = Universalism. Bene = Benevolence. Trad = Tradition. Con = Conformity. Sec = Security. Family = Satisfaction with Family. Grades = Satisfaction with Grades. Social = Satisfaction with Social Life.

* $p < .05$, ** $p < .01$.

activities. Similarly, the more individuals emphasized Hedonism and Stimulation values, the more satisfaction they got out of activities related to Hedonism and Stimulation, such as “going to a loud party.” The more they valued Universalism, the more satisfaction they got out of Universalism-related activities, such as recycling. Finally, the more individuals emphasized Benevolence and Conformity values, the more enjoyment they got out of activities related to Benevolence (e.g., caring about others) and Conformity (e.g., doing what parents want you to do).

Schwartz (1992) assumes a circular structure of values such that individuals high in Power are low in Universalism, and individuals high in Hedonism and Stimulation are low in Conformity (see Appendix B). Schwartz’s structure of values, therefore, predicts inverse relations between Power and Universalism, and Hedonism/Stimulation and Conformity. Table 2 confirms these predictions. The more individuals valued Power, the less they enjoyed Universalism-related activities. The more individuals stressed Universalism values, the less they enjoyed Power-related activities. Similarly, the more people emphasized Conformity values, the less they enjoyed activities related to Hedonism and Stimulation. Consistent with intraindividual analyses, therefore, there are meaningful individual differences in the type of activities that are linked to individuals’ SWB. More important, such differences can be predicted by individuals’ value orientations. Activities are satisfying to the extent that they are congruent with individuals’ values.

As predicted by Ryan et al. (1996), Universalism-related activities were positively correlated with positive emotions. However, other types of activities such as Achievement-related activities and Benevolence/Conformity-related activities were also positively correlated with positive emotions. Whereas self-determination theory (Ryan et al., 1996) predicts positive correlations between Self-Direction, Universalism, and Benevolence values and SWB measures (i.e., SWLS, PA, NA, and domain satisfactions) and negative correlations between Conformity, Tradition, Security, and Power values and SWB measures, these predictions were not supported (see Table 2). For instance, the values of Power were not related to lower life satisfaction nor to negative emotional well-being. The values of Universalism and Benevolence were not related to greater life satisfaction nor to positive emotional well-being. Overall, the size of direct relations between values and SWB indicators was small.

Interindividual Analyses: Domain Satisfaction and Global Life Satisfaction

Finally, we tested the value-as-a-moderator model in the relations between domain satisfaction and global life satisfaction. This model predicts that the life satisfaction of individuals high in Achievement values should be more strongly related to satisfaction with grades than for those individuals low in Achievement values. Likewise, the life satisfaction of individuals high in Benevolence values should be more strongly related to satisfaction with social life than for those individuals low in Benevolence values. Similarly, the life satisfaction of individuals high in Conformity values should be more strongly related to satisfaction with family than for those individuals low in Conformity values. To test the moderating roles of values in the relations between domain satisfactions and global life satisfaction, we used regression analyses with interaction terms between values and domain satisfaction (Aiken & West, 1991).

Before the main analysis, we first examined whether the relation between domain satisfactions and global life satisfaction would be different between sexes. We performed regression analysis, regressing life satisfaction on sex, domain satisfactions, and the interactions between sex and domain satisfactions. The interactions between sex and domain satisfactions were not significant, thereby indicating that the relation between domain satisfaction and global life satisfaction did not differ for men and women. Therefore, we did not include sex in the following analysis. We performed regression analysis, regressing life satisfaction on domain satisfaction, values, and the interactions between values and domain satisfactions. The complete analysis is presented in Table 3. Life satisfaction was first regressed on satisfaction with grades, family, and social life as a first block. Values of Achievement, Conformity, and Benevolence were entered as a second block. Finally, the third block was entered, which contained three interaction terms: (1) the interaction between Achievement values and satisfaction with grades, (2) the interaction between Benevolence values and satisfaction with social life, and (3) the interaction between Conformity values and satisfaction with family. Following Aiken and West's (1991) guidelines, we centered values and domain satisfactions around respective means first, and formed the interaction terms by multiplying centered values and domain satisfactions.

Table 3
 Hierarchical Regression: Predicting the SWLS
 from Domain Satisfactions, Values, and
 Interactions of Domain Satisfactions and Values

Block/Variable	B (final)	SE	β (final)	<i>df</i>	ΔR^2	ΔF
Block 1						
Family Satisfaction	2.06	.32	.33**	3, 256	.40	56.98**
Grade Satisfaction	.80	.31	.13**			
Social Life Satisfaction	2.53	.32	.40**			
Block 2						
Achievement Values	-.03	.32	-.01	3, 253	.00	.28
Benevolence Values	-.18	.32	-.03			
Conformity Values	-.22	.31	-.04			
Block 3						
Grade \times Achievement	.75	.26	.14**	3, 250	.03	4.46**
Family \times Conformity	.49	.27	.09*			
Social Life \times Benevolence	.54	.30	.09*			

* $p < .05$. ** $p < .01$ (one-tailed test was used because the direction was predicted by the model).

As predicted by the value-as-a-moderator model, the three interaction terms significantly explained variance of life satisfaction, above and beyond the main effects of domain satisfactions and values ($\Delta R^2 = .03$, $\Delta F = 4.46$, $p < .01$). Specifically, the interaction between Achievement values and satisfaction with grades was significant, indicating that the stronger the values of Achievement, the stronger the relation between satisfaction with grades and global life satisfaction (see Block 3 of Table 3). Similarly, the interaction between Benevolence values and satisfaction with social life was significant, indicating that the stronger Benevolence values are, the stronger the relation between satisfaction with social life and life satisfaction. Likewise, the interaction between Conformity values and satisfaction with family was significant, indicating that the stronger Conformity values are, the more strongly satisfaction with family was related to global life satisfaction. In short, the regression analysis supported the value-as-a-moderator model: Value-congruent domain satisfaction is more strongly related to global life satisfaction than is value-incongruent domain satisfaction.

GENERAL DISCUSSION

Previous research in the field of SWB has focused mostly on interindividual differences: “Who is happy?” (e.g., Myers & Diener, 1995) and “Is their happiness consistent and stable?” (e.g., Diener & Larsen, 1984). An alternative approach to understanding SWB is to examine intraindividual variation based on Mischel and Shoda’s (1995) framework. Although researchers have made some progress understanding this intraindividual variation (e.g., Cantor et al., 1991; Emmons, 1991), few studies have tried to integrate findings from the interindividual tradition with findings from the intraindividual tradition. The current study attempted to further our understanding of the interplay of intraindividual and interindividual processes in SWB. More specifically, we proposed and found support for the value-as-a-moderator model, in which domains affect SWB most strongly when they are congruent with one’s value orientations.

Value Priorities and Predictors of Life Satisfaction

From the value-as-a-moderator model, we predicted that the relations between domain satisfactions and global life satisfactions would systematically vary, depending on individuals’ value orientations. As predicted, the interindividual analyses indicate that value-congruent domain satisfaction was more strongly related to global life satisfaction than was value-incongruent domain satisfaction. More specifically, global life satisfaction was strongly influenced by social life for individuals high in Benevolence values, whereas it was strongly influenced by family life for individuals high in Conformity values. Satisfaction with grades was a stronger predictor of global life satisfaction for individuals who stress Achievement than for those who do not. These results suggest that global life satisfaction judgments are derived from different life domains for different individuals, and that these interindividual differences are moderated by their value orientations.

Intraindividual Processes

In addition to the relations between domain satisfactions and global life satisfaction, we examined the relations between daily satisfaction and

daily domain satisfactions to explore the processes of life satisfaction judgment at the two different levels. The hierarchical linear model analysis revealed that within-individual variation of day-to-day satisfaction is strongly influenced by daily satisfaction with the most valued domain. In other words, Achievement-oriented individuals tended to evaluate a day as good when they excelled in achievement domains, whereas those who stressed Benevolence evaluated the day as good when they had a positive social interaction. Emmons (1991) and Cantor et al. (1991) focused, in their daily diary studies, on the patterns of emotional experiences. The present investigation extended the prior studies to daily satisfaction, and showed that there are intraindividual variations in the patterns of daily satisfaction judgments, which can be reliably predicted from individuals' value orientations.

Equally important, the within-individual analysis converged with the patterns that emerged at the interindividual level. Admittedly, the patterns of relations between domain satisfactions and global life satisfaction might be influenced by memory bias such that the level of global life satisfaction distorts the level of certain domain satisfaction. However, the consistent patterns of relations were obtained in the daily diary study, which is less susceptible to memory bias. Therefore, it appears that meaningful individual differences do exist in the patterns of relations between domain satisfactions and global life satisfaction. The converging processes of daily satisfaction and long-term global satisfaction judgments present a unified view, however preliminary, of how different individuals evaluate their life satisfaction.

The current daily diary study also extended Sheldon et al.'s (1996) results, by examining the different degrees of importance assigned to the domain related to competence. Sheldon et al. found that daily satisfaction was strongly related to the degree of success in competence and autonomy domains. They implied that the degree of success in competence and autonomy determines the level of day-to-day well-being, regardless of individuals' value orientations. It is interesting to note that in the present analysis we also found that daily achievement as well as social life was a positive predictor of how good the day was (see the average ordinary least square regression equation in Table 1). However, we also found that the degree to which the achievement of the day influences the evaluation of the day as a whole differs significantly across individuals, depending on the values of Achievement. That is, although on average satisfaction with social life and achievement are both significant predic-

tors of daily satisfaction, there are significant individual differences in the extent to which each domain influences individuals' judgment of how good or bad the day was. As such, considering value orientations provides a more sophisticated understanding of the intraindividual processes of SWB.

Analogous to Mischel and Shoda's (1995) "if . . . then . . ." signature, the present findings indicate that there are important interindividual and intraindividual differences in the patterns of relations between domain satisfaction and global life satisfaction. *If* they were successful in achievement domains, *then* people high in Achievement values would feel satisfied with life, whereas *if* they were successful in the social life domain, *then* people with high Benevolence values would feel satisfied with life in general. The patterns of relations between domain satisfactions and global life satisfaction provide valuable information on individuals' SWB, beyond the mean level of life satisfaction. In order to understand individuals' *subjective* well-being, it is critical to document the processes through which individuals construe various facets of life domains and life as a whole.

What Are Satisfying Activities?

Furthermore, the analysis on satisfying activities showed that people find different activities more or less rewarding. For instance, individuals high in Universalism values found recycling and participating in civic activities very satisfying, whereas those high in Power values perceived buying expensive clothes as highly satisfying. As Table 2 indicates, therefore, there are considerable individual differences in the type of activities that generate a sense of satisfaction. Csikszentmihalyi (1975) argues that the crucial ingredient of flow activities is the balance between skills and challenges. Csikszentmihalyi and Csikszentmihalyi (1988) compare chess with Tic-Tac-Toe, and insist that the flow activities involve complexities and challenges. Although Csikszentmihalyi discusses various manifestations of flow experiences, including drawing, chess, and basketball, and their emotional consequences, it remains unclear how different activities are linked to flow experiences for different individuals. Nakamura (1988), for instance, found that high school students with similar math ability exhibited striking differences in enjoyment of solving math problems. That is, even among individuals with similar skills, there are substantial individual differences in the degree to which the

same activity generates flow experiences. The present findings suggest that it is value-congruent activities that provide a sense of satisfaction.

The present analysis also has an important implication for the self-determination theory of SWB (e.g., Ryan et al., 1996). Recently, Sheldon and Kasser (in press) argued that a higher level of well-being can be obtained only through successful pursuit of intrinsic goals related to self-acceptance, intimacy, and social contribution. On the other hand, they asserted that attainment of financial goals would not lead to individuals' sense of well-being as strongly as the attainment of intimacy goal. It should be noted, however, that even the activities apparently related to extrinsic motivation, such as "doing what parents want me to do," did provide a sense of satisfaction for individuals who value Conformity (see Table 2). That is, although on average the activities related to interpersonal relationships and community contribution tend to be associated with positive emotional experiences, to the extent that the activity reflects individuals' important values, it provides a sense of satisfaction. In contrast to the self-determination theory of SWB (Ryan et al., 1996), the present study suggests that there is more than one path to a higher level of well-being.

Future Directions

One limitation of this study is that domains in which we tested the value-as-a-moderator model were limited mostly to Achievement, Benevolence, and Conformity. In the future, the model should be tested in other value domains. Second, participants in this study were college students. Compared to older adults, their value orientations might not be well crystallized. It is important, therefore, to test the value-as-a-moderator model in older samples. This will allow us to test the generalizability of the model as well as to examine whether the size of moderator effects of values on SWB varies, depending on the stability of value orientations.

Third, although we found evidence that values moderate the patterns of relations between domain satisfactions and global life satisfaction, the present study did not examine *why* values serve as a moderator. A possible explanation for this is that value-congruent domains are chronically more accessible. With respect to self-regulation, Higgins (1996) has shown that chronically accessible self-concepts (e.g., ideal-self, ought-self) are related to the type of emotional experiences and the type of stories

people remember. Consistent with the accessibility hypothesis, Strack, Martin, and Schwarz (1988) found that domain satisfactions correlate more strongly with global life satisfaction when the domain is accessible to the individual than when it is not accessible. Future studies should examine whether values represent chronically accessible concepts. In other words, are concepts “status,” “money,” and “physical attractiveness” more accessible to individuals who value Power than to those who value Universalism? Similarly, the accessibility hypothesis of SWB suggests that temporally accessible domains are stronger predictors of life satisfaction than nonaccessible domains. The domain “social life” may be more accessible and therefore more important on weekends than on weekdays. Future studies should examine whether daily social life satisfaction will be a stronger predictor of daily satisfaction on weekends than on weekdays.

Finally, we tested the value-as-a-moderator model at intraindividual and interindividual levels. In the future, this model should be tested in developmental and cross-cultural contexts. Is satisfaction with family a stronger predictor of life satisfaction among those who are married with children than among teenagers? Does the deprivation of freedom result in a more negative emotional reaction among people in individualist cultures than among people in collectivist cultures? These multilevel phenomena could be investigated using the value-as-a-moderator model.

CONCLUSION

Until recently, it appeared that all the important individual differences in SWB could be explained by personality traits (e.g., Costa & McCrae, 1980; McCrae, & Costa, 1991). Such a perception prevailed, in part, due to the lack of attention to the qualitative aspects of SWB among researchers, and to the focus on nomothetic analysis. As demonstrated in the present study, however, there are meaningful individual differences in the patterns of relations among the key constructs in SWB. The systematic understanding of the individual differences in the *qualitative* aspects of SWB supplements the limitations of the trait approach to SWB, providing a powerful tool to explain the processes of SWB. The examination of individual, developmental, and cross-cultural variations in the processes of SWB is a promising pathway to gain insights into the nature of SWB, which can be undertaken from the value-as-a-moderator model.

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Appendix A

Principal Axis Factor Analysis of the Satisfying Activity Scale With Varimax Rotation					
Items	F1	F2	F3	F4	F5
<i>Benevolence/Conformity</i> ($\alpha = .74$)					
Showing that you care about others	.65	.11	.23	.07	.10
Following rules set by a group you belong to	.65	.12	-.08	.18	-.23
Agreeing and following other's suggestion/opinion	.64	.03	.16	.03	.01
Caring about friends and family	.59	.13	.20	.04	.20
Doing what parents want you to do	.45	.19	.06	.10	-.03
Forgiving other's mistake	.44	.07	.25	-.08	.02
<i>Achievement</i> ($\alpha = .79$)					
Making a long-term plan	.32	.69	-.08	.13	.04
Making a conscious effort to achieve your goals	-.01	.68	.18	.09	-.06
Deciding what you want to do in the future	.38	.64	-.06	.02	-.07
Choosing your own goals	.00	.57	.12	.09	.05
Studying to get good grades	.32	.56	.15	.12	-.24
<i>Universalism</i> ($\alpha = .77$)					
Attending a rally to support conservation of nature	.09	.00	.74	-.03	.02
Participating in a fund-raising for people and families with AIDS	.09	.05	.73	.05	.01
Recycling bottles, old newspapers, and office papers	.29	.08	.60	-.01	-.11
Doing a volunteer work	.23	.22	.57	.01	.10
<i>Power</i> ($\alpha = .65$)					
Buying expensive clothes	.13	.19	-.04	.75	.18
Making a lot of money	-.01	.04	-.09	.62	.01
Cleaning your room and keeping everything in order	.08	.13	.16	.47	-.11
<i>Hedonism/Stimulation</i> ($\alpha = .59$)					
Doing homework instead of going out for fun (R)	.05	-.23	-.03	-.07	.64
Going to a loud party	.12	.04	-.02	.24	.62
Avoiding high-risk activities (R)	-.17	.06	-.01	-.25	.44
Doing different things every weekend	.06	.00	.31	.30	.42
Eigenvalue	4.27	1.90	1.53	1.18	1.00
Percent of variance explained	19.4	8.6	6.9	5.4	4.5
Cumulative percent of variance explained	19.4	28.0	35.0	40.4	45.0

Appendix B

Schwartz and Sagiv's (1995) Structure of 10 Value Types

