Looking Up and Looking Down: Weighting Good and Bad Information in Life Satisfaction Judgments

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In two large international studies, the authors examined whether happy and unhappy individuals weighted life domains differently when constructing life satisfaction judgments. In both studies, regression equations predicting life satisfaction showed that there were significant interactions between happiness and a person's best domain and between happiness and a person's worst domain, even after controlling for participants' standing on all other domains. Happy participants weighted their best domains more heavily than did unhappy individuals, whereas unhappy individuals weighted their worst domains more heavily than did happy individuals. Thus, happy and unhappy people used different information when constructing satisfaction judgments.

Subjective well-being (SWB) researchers strive to understand the factors that foster a satisfying and fulfilling life. To accomplish this goal, they often test whether various life circumstances are related to self-reported judgments of life satisfaction (for a review, see Diener, Suh, Lucas, & Smith, 1999). For example, researchers may test whether variables such as health, income, and social support predict variation in satisfaction scores to learn whether these variables are necessary for a fulfilling life. When conducting this type of analysis, researchers often make one of two assumptions about satisfaction judgments. They often assume that either (a) there is a stable internal state of satisfaction and satisfaction judgments accurately reflect this internal state or (b) satisfaction judgments are constructed by the participant at the time of the judgment but that people can accurately summarize their standing on all important factors when computing this judgment. If either of these assumptions were true, SWB researchers could identify the factors that were important for well-being simply by examining the correlates of satisfaction judgments.

For example, in 1976, Campbell, Converse, and Rodgers presented a popular model of satisfaction judgments. They argued that people review the various domains of their lives, compare these domains to relevant standards (e.g., what other people have), and then sum their satisfaction with each domain to arrive at a global judgment. Thus, Campbell et al. proposed a model of life satisfaction judgments that involves an extensive computational process in which each domain is evaluated in reference to multiple standards and satisfaction judgments reflect the average weighted sum of these evaluations across domains. According to this model, domains that are important for life satisfaction should show strong correlations with satisfaction judgments.

Recent research shows, however, that the assumptions that underlie this type of model are often not valid. People do not appear to have stable, internal feelings of satisfaction that they access and report when asked. Instead, satisfaction judgments appear to be constructed at the

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time of judgment, and they seem to reflect only the information that is accessible at that moment (Schwarz & Strack, 1999). Therefore, if one's health were not salient at the time of judgment, this domain would not influence or be related to satisfaction judgments.

Because of this complicating factor, SWB researchers have developed more sophisticated hypotheses about the processes by which satisfaction judgments are constructed. Fredrickson and Kahneman (1993), for example, investigated the characteristics of events that are likely to influence satisfaction judgments. They showed that people tend to focus on the most intense experience and the end experience when judging overall satisfaction with a series of events. Furthermore, people tend to ignore the duration of events so that long unpleasant events are weighted about the same as short unpleasant events. Other researchers have investigated the situational factors that influence satisfaction judgments. Schwarz and Strack (1999), for example, reviewed evidence showing that seemingly unimportant factors such as the order of questions, the weather at the time of judgment, and the presence or absence of an individual in a wheelchair can all have significant influences on life satisfaction judgments.

The research of Schwarz and Strack (1999) suggests that individuals are likely to take shortcuts or use heuristics to lessen the burden of making life satisfaction judgments. Rather than conducting a computationally intensive review of all important life domains, individuals conduct a quick review of the domains that are most salient at the time of judgment. Thus, satisfaction judgments can be changed simply by making different information salient. Yet, if these judgments are so malleable, why is life satisfaction relatively stable over time (Lucas, Diener, & Suh, 1996)? Why are there reliable and stable differences in well-being that are related to important life circumstances and can be predicted by non-self-report measures such as informant reports, expert ratings, and memory for positive and negative events?

One possible answer is that although people simply use the information that is salient at the time of judgment, there may be certain sources of information that are chronically salient. Schimmack, Diener, and Oishi (2000), for example, found that people use chronically accessible information (e.g., grades) when making life satisfaction judgments. Furthermore, there may be individual differences in the type of information that is chronically accessible (e.g., Oishi, Diener, Suh, & Lucas, 1999; Oishi, Schimmack, Diener, & Colcombe, 2000). Sensation seekers, for example, tend to rely on the amount of physical pleasure they experience when making judgments of daily satisfaction (Oishi, Schimmack, & Diener, 2001). In addition, cultural variables seem to influence the type of information that is chronically accessible. Diener and Diener (1995) showed that people in individualist cultures were much more likely than people in collectivist cultures to use self-esteem as relevant information when making satisfaction judgments, and Suh, Diener, Oishi, and Triandis (1998) found that participants in individualist nations were more likely than participants in collectivist nations to rely on affective reactions when making life satisfaction judgments. Participants from collectivist nations, on the other hand, were more likely to use norms about whether they should be satisfied.

In addition to these tendencies to rely on different domains, we hypothesize that individuals also may differ in the tendency to look at the best aspects of their lives versus the worst aspects of their lives when making satisfaction judgments. Specifically, there is evidence that people who tend to experience pleasant emotions such as happiness and joy are more likely to focus on and attend to positive information. Matlin and Gawron (1979), for example, found that happy people were more likely than unhappy people to recall pleasant words on a memory task, to supply more free association to pleasant stimuli, and to judge pleasant words as being more frequent in the English language (when compared to unpleasant words). Oishi and Diener (2001) found that given the same level of satisfaction with specific domains (e.g., family, friends, roommates), happy people reported being more satisfied with the corresponding global domains (e.g., social relationships) than unhappy people. Other studies have shown that the use of positive versus negative information may have implications for satisfaction judgments. In a study of social comparison, Lyubomirsky and Ross (1997) found that happy people tended to use downward social comparison (which often results in favorable comparisons for the self), whereas unhappy people tended to use both upward and downward comparisons. Similarly, McFarland and Miller (1994) found that in a performance task, optimistic people focused on the number of people who did worse than they did (again, resulting in favorable comparisons), whereas pessimistic people focused on the number of people who did better.

Even when more basic types of information are studied, there are clear differences in the use of positive and negative information. Rusting and Larsen (1998), for example, found that extraverts (who tend to experience higher levels of pleasant affect than introverts) performed better than introverts on cognitive tasks (e.g., recall tasks, word fragment tasks, and reaction time tasks) involving pleasant stimuli. There appear to be a number of consistent differences in the ways that people process and use positive versus negative information (see Rusting, 1998, for a review). Happy people (and people who score high on personality traits that are

related to happiness) are more likely than unhappy people to focus on and efficiently process pleasant information.

We hypothesized that individuals who experience high levels of happiness and pleasant emotions should be more likely than unhappy people to focus on the positive aspects of their lives when making satisfaction judgments. Thus, positive domains should be more strongly related to satisfaction judgments for happy people than for unhappy people. In contrast, unhappy people should be more likely than happy people to focus on the negative aspects of their lives, and negative domains should be more strongly related to satisfaction judgments for unhappy people than for happy people. Thus, even after controlling for people's standing on a variety of domains, happy individuals should be more satisfied with their lives than unhappy individuals because happy individuals place more weight on their best domains and less weight on their worst domains when compared to unhappy people.

In each of our two studies, respondents rated their happiness, their overall satisfaction with life, and their satisfaction with various domains in their lives, including their health, education, and friends. We predicted that at each level of domain satisfaction, happy individuals should be more satisfied with their lives. If there are multiple domains from which to choose, happy individuals should choose to focus on the positive aspects and report higher life satisfaction. To examine this process in more detail, we analyzed the relation between an individual's best and worst domains and his or her life satisfaction. We predicted that happiness should interact with the best and worst domain such that the best domain should show a stronger association with satisfaction for the happy people than for the unhappy people and the worst domain should show stronger association with satisfaction for unhappy people than for happy people.

STUDY 1

Method

In the 1980s, Michalos (1991) collected data on subjective well-being from college students in more than 30 nations. The samples were selected from between one and five different colleges in each nation. The current analyses included 13,113 participants from 31 nations. The full Michalos data set was not used because of irregularities in the data of some individuals and some countries. Our analyses usually included slightly fewer participants because not all individuals responded to all questions.

Participants were asked to rate their life satisfaction using a 7-point Likert scale. In addition, participants were asked to rate their happiness on a 7-point scale ranging from *very unhappy* to *very happy*. Finally, participants were asked to rate their satisfaction (using a 7-point *terrible* to *delighted* scale) on eight domains: health, finances, family, friends, recreation, religion, self, and education. These eight domains were selected because they were included in both Study 1 and Study 2 data sets and because there was not a lot of missing data in these domains.

Results

To test our first hypothesis, we entered all eight domain satisfaction scores into a regression equation predicting overall life satisfaction. Next, we entered happiness into the equation. As predicted, happiness was significantly associated with life satisfaction, even after controlling for satisfaction with each of the eight domains, $\Delta R^2 = .08$, $F(1, 8751) = 1{,}539.32$, $p < .001$. In other words, at the same level of domain satisfaction, happy individuals were more satisfied than unhappy individuals.

We hypothesized that given the same life circumstances, happy individuals would be more likely than unhappy individuals to focus on the positive aspects of their lives, whereas unhappy individuals would be more likely than happy individuals to focus on the negative aspects of their lives. If so, there should be interactions between happiness and a person's best domain and between happiness and a person's worst domain in predicting overall satisfaction. To test this possibility, we conducted additional regression analyses. First, we created new variables reflecting a person's scores on his or her best domain and his or her worst domain. Next, we created a variable reflecting the average domain satisfaction for the remaining six domains. Finally, we centered all predictor variables and constructed interaction terms by multiplying a person's centered happiness score with his or her best domain and his or her worst domain.

We then conducted regression analyses to test the important interaction effects. First, we entered the average of the six middle domain scores, the best domain, the worst domain, and happiness into a regression equation predicting overall satisfaction. Next, we entered the two interaction terms: Happiness × Best Domain and Happiness × Worst Domain. Results for the final model are presented in Table 1.

There were significant simple effects for each of the variables entered into the equation. One's best domain, worst domain, and happiness all significantly predicted satisfaction, even after controlling for his or her six middle domains. As predicted, there was also a positive interaction between happiness and one's best domain. The slope of the regression line predicting life satisfaction from the best domain in one's life was more positive among happy individuals than among unhappy individuals. Conversely, there was a negative interaction

TABLE 1: Regression Analyses Predicting Life Satisfaction in Study 1

Variable	B	SE B	β	t	p	R^2	ΔR^2
Middle six domains	.063	.002	.316	34.780	< .001	.518	
Best domain	.118	.011	.085	10.601	< .001		
Worst domain	.134	.007	.147	19.188	< .001		
Happiness	.328	.007	.366	50.037	< .001		
Happiness × Best domain	.029	.008	.025	3.859	< .001	.521	.003
Happiness × Worst domain	–.045	.005	–.058	–9.428	< .001		

NOTE: n = 12,005.

between happiness and one's worst domain, meaning that the slope of the regression line predicting life satisfaction from the worst domain was less positive among happy individuals than among unhappy individuals.[1] To illustrate these interactions, we used the regression equation to plot satisfaction scores for individuals at different levels of happiness and with different levels of satisfaction with the best and worst domains. Specifically, in Figure 1 Panel A, we plotted satisfaction scores for happy (one standard deviation above the mean) individuals who reported the maximum or minimum score for their best domain and unhappy (one standard deviation below the mean) individuals who reported the maximum or minimum score for their best domain. In Figure 1 Panel B, we plotted happy people who reported the maximum or minimum score for their worst domain and unhappy people who reported the maximum or minimum score for their worst domain (maximum and minimum values were determined by the actual range of values reported for the best and worst domain). As can be seen in Figure 1, there is a steeper regression line predicting satisfaction scores from one's best domain (dotted lines) among happy people (square markers; B = .154, SE = .016, β = .111, t = 9.395, p < .001) when compared to unhappy people (circle markers; B = .085, SE = .012, β = .061, t = 7.048, p < .001). On the other hand, there is a steeper regression line predicting satisfaction scores from one's worst domain (solid lines) among unhappy people (B = .185, SE = .009, β = .203, t = 20.575, p < .001) when compared to happy people (B = .079, SE = .009, β = .086, t = 8.743, p < .001).

There is one alternative explanation for this pattern of results. It is possible that certain domains tend to be strongly associated with life satisfaction regardless of a person's standing on that domain and happy and unhappy people may differ in the likelihood of reporting those domains as their best or worst. For example, health may be an important predictor of satisfaction whether health is a person's best domain or a person's worst domain. If happy and unhappy people differ in the likelihood of health being their best domain or their worst domain, we may find interaction effects when predicting life satisfaction. To address this possibility, we

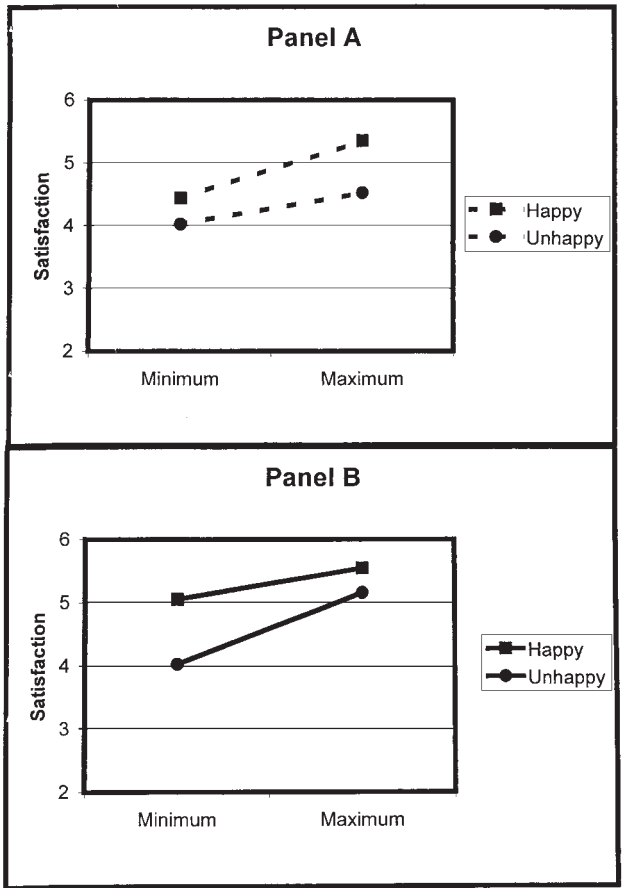

Figure 1 Study 1 satisfaction scores for happy and unhappy individuals with different levels of best (Panel A) and worst (Panel B) life domains.

examined which domains happy, average, and unhappy people tended to choose as their best and worst domains. This analysis revealed that happy people (those scoring in the top third) were more likely than average (middle third) or unhappy people (bottom third) to say that their "self" was their best domain (36.3% vs. 29.5% and 28.8%, respectively). Similarly, 18.7% of unhappy people, 17.0% of average people, and 15.3% of happy people said that "self" was their worst domain. There were no other differences in the domains that happy or unhappy people chose as their best or

worst domains. To see whether the interaction effects still held even after excluding the self domain from the analyses, we recomputed each person's best domain, middle five domains, and worst domain using only the seven domains other than the self. The pattern of results was identical. There was a significant positive interaction between happiness and best domain ($B = .021$, $SE = .008$, $t = 2.831$, $p < .01$) and a significant negative interaction between happiness and worst domain ($B = -.042$, $SE = .005$, $t = 8.592$, $p < .001$).

The significant interactions are not due to the extreme salience of certain types of domains that happy people disproportionately report as their best domain and that unhappy people disproportionately report as their worst domain. There is one domain that happy people are more likely to report as their best domain, and this is the domain of self. It is likely that people may perceive satisfaction with self as similar to satisfaction with life. Alternatively, because there may not be as many objective conditions related to one's self, satisfaction with the self may be more strongly colored by one's temperament and overall happiness. In any case, when satisfaction with self is removed from the analyses, the pattern of results is the same.

Discussion

Happy people reported high life satisfaction even when satisfaction with their domains was controlled. Happy people also appeared to weight the best domains of their lives more strongly than did unhappy people when computing a life satisfaction judgment, whereas unhappy individuals appeared to weight information about the worst domains in their lives more strongly than did happy people. In Study 2, we used a more diverse sample of nations and a different type of happiness measure. Instead of a single happiness item, we used an affect balance scale derived from separate ratings of pleasant and unpleasant emotions. Similar to the happiness measure in Study 1, this measure taps a global rating of affective well-being. Larsen (1989) has shown that global happiness measures are closely related to the pleasantness dimension of emotional experience. However, this multi-item affect balance scale is much more reliable than the single item happiness measure used in Study 1. In addition, in Study 2, we used a more reliable measure of life satisfaction. The eight domains were identical to those in Study 1 to replicate the earlier findings.

STUDY 2

Method

In 1994, Diener and his colleagues collected SWB data from college students around the world (see Suh et al., 1998, for a description of the sample). The sample used here included 7,166 students from 41 nations (e.g., Australia, China, Kuwait, Indonesia, Nepal, and Tanzania).

In this study, global satisfaction was assessed with the Satisfaction With Life Scale (SWLS) (Diener, Larsen, Emmons, & Griffin, 1985). The measure includes five items answered on a 7-point scale, with responses ranging from *strongly disagree* to *strongly agree*. A sample item is "My life is close to my ideal." Happiness was based on mood adjective ratings. Specifically, participants rated how frequently they felt each of 8 positive mood adjectives (e.g., joy and affection) and how frequently they felt each of 16 negative mood adjectives (sadness and anxiety; see Suh et al., 1998, for details). Pleasant and unpleasant affect scores were calculated by summing each set of items and dividing that sum by the number of items, resulting in separate pleasant and unpleasant affect scores ranging from 1 to 7. Global happiness was indicated by respondents' affect balance (positive affect minus negative affect). As in Study 1, satisfaction with the eight major life domains was assessed on a 7-point scale ranging from *extremely dissatisfied* to *extremely satisfied*.

Results

To test whether happy people reported greater satisfaction even after controlling for domain satisfaction, we entered all eight domain satisfaction scores into a regression equation predicting overall life satisfaction. Next, we entered affect balance into the equation. As predicted, affect balance was significantly associated with satisfaction, even after controlling for satisfaction with each of the eight domains, $\Delta R^2 = .05$, $F(1, 5{,}901) = 485.69$, $p < .001$. In other words, at the same level of domain satisfaction, happy individuals were more satisfied with their lives than were unhappy individuals.

Next, using the same procedures described in Study 1, we tested whether there were significant interactions between affect balance and a person's best domain and between affect balance and a person's worst domain when predicting life satisfaction. Results are presented in Table 2. Again, all simple effects were significant. In addition, there was a significant positive interaction between affect balance and the best domain and a significant negative interaction between affect balance and the worst domain.[2] These interactions are illustrated in Figure 2. Similar to the results of Study 1, Panel A shows that there is a steeper slope for one's best domain among happy people ($B = 1.236$, $SE = .150$, $\beta = .141$, $t = 8.243$, $p < .001$) than among unhappy people ($B = .664$, $SE = .107$, $\beta = .076$, $t = 6.215$, $p < .001$), and Panel B shows that there is a steeper slope for one's worst domain among unhappy people ($B = .577$, $SE = .088$, $\beta = .119$, $t = 6.531$,

TABLE 2: Regression Analyses Predicting Life Satisfaction in Study 2

Variable	B	SE B	β	t	p	R^2	ΔR^2
Middle six domains	.297	.015	.302	19.372	<.001	.393	
Best domain	.950	.099	.108	9.560	<.001		
Worst domain	.437	.068	.090	6.421	<.001		
Happiness	.329	.012	.298	27.470	<.001		
Happiness × Best domain	.050	.015	.033	3.396	<.01	.395	.002
Happiness × Worst domain	–.025	.008	–.029	–3.044	<.01		

NOTE: $n = 6{,}775$.

$p < .001$) than among happy people ($B = .298$, $SE = .075$, $\beta = .062$, $t = 3.945$, $p < .001$).

Again, we checked to see whether happy and unhappy people differed in the domains that they reported as their best or worst domains. In this sample, the differences were even more striking: 35.5% of happy participants reported that "self" was their best domain, compared to 23.2% of average participants and just 14.9% of unhappy participants. Results for the worst domain were similar: 30.7% of unhappy participants reported that "self" was their worst domain, compared to just 19.3% of average participants and 13.3% of happy participants. Again, there were no differences between happy and unhappy people in the likelihood of reporting other domains as their best or worst domains, and when the self domain was excluded from the analyses, the same pattern emerged. There was still a significant Affect Balance × Best Domain interaction ($B = .047$, $SE = .014$, $t = 3.241$, $p < .001$) and a significant Affect Balance × Worst Domain interaction ($B = –.022$, $SE = .008$, $t = 2.683$, $p < .01$). Although happy people are more likely to report high satisfaction with the self, and unhappy people are more likely to report low satisfaction with the self, the results are the same even when self is not included in the analyses. Again, happy participants appear to weight the best domains in their lives more heavily than do unhappy individuals, whereas unhappy individuals weight the worst domains in their lives more heavily than do happy individuals.

We also conducted similar analyses with separate pleasant and unpleasant affect scores and interaction terms. The results presented in Table 3 illustrate that pleasant and unpleasant affect are separable and have independent effects on satisfaction judgments. Pleasant and unpleasant affect independently predict life satisfaction, and three out of the four interactions with pleasant and unpleasant affect are significant. The interaction between pleasant affect and one's best domain, between pleasant affect and one's worst domain, and between unpleasant affect and one's worst domain are all significant. Thus, the tendency to focus on one's best domain or one's worst domain seems to be independently related to pleasant and unpleasant affect.

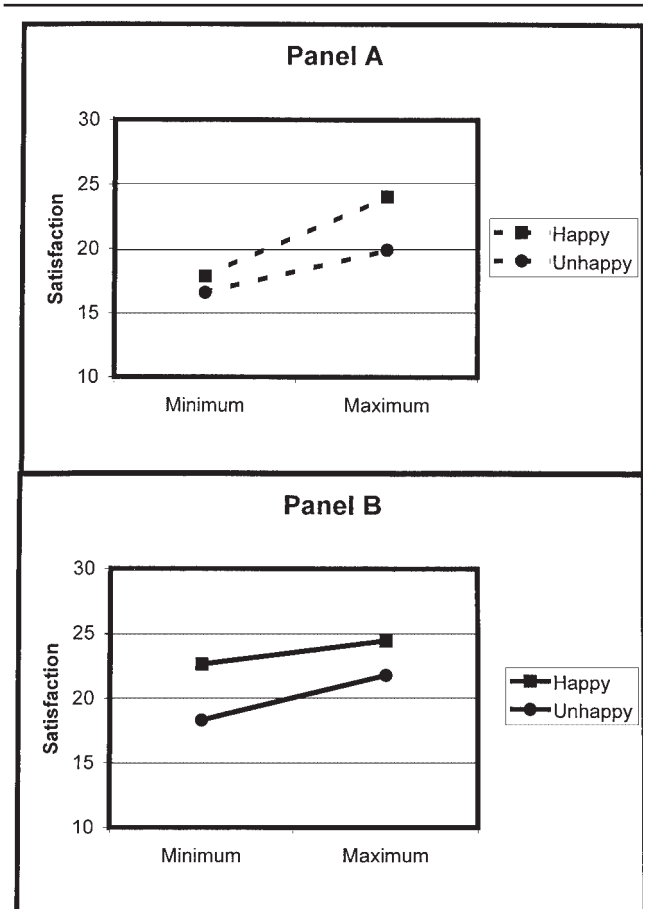

Figure 2 Study 2 satisfaction scores for happy and unhappy individuals with different levels of best (Panel A) and worst (Panel B) life domains.

GENERAL DISCUSSION

In their classic book on subjective well-being, Campbell et al. (1976) argued that people construct satisfaction judgments by summing their satisfaction with a variety of different domains. The present findings indicate that this process does not occur in an identical fashion for all individuals. Instead, there are individual differences in the tendency to look at one type of information versus another. Specifically, our findings suggest that

TABLE 3: Regression Analyses Predicting Life Satisfaction From Pleasant and Unpleasant Affect in Study 2

Variable	B	SE B	β	t	p	R^2	ΔR^2
Middle six domains	.276	.015	.280	18.164	<.001	.407	
Best domain	.763	.099	.089	7.672	<.001		
Worst domain	.512	.067	.106	7.592	<.001		
Pleasant affect (PA)	.460	.016	.313	29.457	<.001		
Unpleasant affect (UA)	–.163	.018	–.086	–9.128	<.001		
PA × Best domain	.039	.019	.018	2.037	<.05	.409	.002
PA × Worst domain	–.051	.011	–.046	–4.834	<.001		
UA × Best domain	–.046	.023	–.018	–1.986	<.05		
UA × Worst domain	.012	.014	.008	0.877	*ns*		

NOTE: $n = 6{,}775$.

some individuals are likely to weight good aspects of their lives more heavily when making satisfaction judgments, whereas others are likely to weight the bad aspects of their lives more heavily. It is unlikely that people conduct a complete and systematic search of their life domains when making satisfaction judgments. Because there are so many life domains and so many possible standards of evaluation, such a search procedure would be quite tedious and slow. Respondents appear to use heuristics to simplify the judgment task and to highlight certain types of information that are most salient to them.

Different life circumstances may influence happy and unhappy people differently. Happy people are only slightly better off than unhappy people if there is no domain that is particularly positive in their lives (.38 *SD* difference in Study 1, .20 *SD* difference in Study 2). That is, when there is no excellent domain, happy people are only slightly more satisfied with their lives than are unhappy people. However, when some domain is considered very satisfying, their overall satisfaction is much higher than that of unhappy people (.91 *SD* difference in Study 1, .66 *SD* difference in Study 2). Similarly, happy and unhappy people do not differ that much in life satisfaction when their worst domain is not that bad (.36 *SD* difference in Study 1, .42 *SD* difference in Study 2). However, when the worst domain is bad, unhappy people are more dissatisfied than happy people (1.02 *SD* difference in Study 1, .69 *SD* difference in Study 2). These findings are consistent with a number of experimental (e.g., Larsen & Ketelaar, 1989, 1991; Rusting & Larsen, 1997, 1998) and naturalistic (e.g., Gable, Reis, & Elliot, 2000; Suls, Green, & Hills, 1998; Suls, Martin, & David, 1998) studies showing temperamental differences in reactivity to positive and negative stimuli. Our findings concerning the use of information in forming a global life satisfaction judgment are thus consistent with controlled laboratory studies and naturalistic studies of emotional reactions to positive and negative stimuli.

Understanding the heuristic processes that underlie satisfaction judgments can help researchers understand whether people compute satisfaction judgments in what Diener (1984) has labeled a "top-down" versus a "bottom-up" way. According to bottom-up models (e.g., Campbell et al., 1976), global ratings of overall life satisfaction result from the summation of satisfaction with specific domains. If this model were correct, we could predict a person's overall well-being by knowing where he or she stood on all relevant domains. According to top-down models, on the other hand, the global judgment comes first and colors one's response to more specific domain satisfaction questions. The results presented here suggest that there can be top-down influences on how bottom-up information is used. A happy person's overall life satisfaction might be constructed in part in a bottom-up way, but this bottom-up process may differ from the bottom-up process that an unhappy person uses. Thus, the specific information that one uses in satisfaction judgments may be influenced by top-down processes: Happy people may be more likely to attend to the best domains in their lives and unhappy people may be more likely to attend to their worst domains.

Some might object to our conclusions based on the fact that the interactions are small. However, these interaction effects were significant and consistent across two diverse samples using two different measures of affective well-being and two different measures of life satisfaction. In addition, the interaction effects were significant even after controlling for one's standing on all eight domains and after controlling for one's level of happiness—variables that can explain much of the variability in satisfaction scores. We would not expect these types of interaction effects to account for large amounts of variance. We would not expect happy individuals to ignore their worst domains when evaluating their lives; to do so would often be detrimental. Similarly, we would not expect most unhappy people to totally ignore all the best things

in their lives but only to give these domains less weight. Even though these effects are modest in size, they have important implications for the processes underlying satisfaction judgments.

Furthermore, the nature of these interaction effects rules out a number of alternative explanations. For example, these interactions do not emerge simply because happy people report being more satisfied with all domains than were unhappy people. This type of bias is controlled when the simple effects for a person's best, worst, and middle domains are entered into the regression equation. The interaction effects reflect the additional boost that happy people get from having a very good domain in their lives and the additional drop that unhappy people experience from having a very bad domain in their lives, beyond the effects due to average domains. Furthermore, the results argue against the fact that very good things or very bad things simply have a disproportionate effect on overall satisfaction. The pattern of interaction effects suggests that very good things have a disproportionate effect only for happy people, whereas very bad things have a disproportionate effect only for unhappy people, just as the theory would predict.

There are clear directions for future research into the differential use of good and bad information among happy and unhappy individuals. For example, experimental studies are needed to replicate the findings presented here. If happy and unhappy participants were exposed to a series of good and bad stimuli, we would expect happy participants to be more reactive than unhappy individuals to variation in the most pleasant stimuli, whereas unhappy participants should be more reactive than happy individuals to variation in the least pleasant stimuli. Furthermore, it would be interesting to determine whether these types of effects hold for preexisting temperamental levels of happiness and for experimentally induced happy moods. Experimental studies can further our knowledge of how individuals remember and use information to construct satisfaction judgments.

In assessing their life satisfaction, unhappy individuals appear to give greater weight than happy individuals to what might be wrong in their lives. This approach to life might facilitate correcting what is wrong. In contrast, happy individuals see through the proverbial rose-colored glasses and weight the positive aspects of their lives more heavily than do unhappy individuals. This approach might heighten self-confidence and encourage approach behaviors. The effects of accentuating the positive versus the negative when evaluating one's life are largely unknown and are richly deserving of research attention. The results do suggest that there may be limits to dispositional influences on life satisfaction in that a happy person might not be much more satisfied if no domain is particularly desirable in her life and an unhappy person might not be particularly dissatisfied if no domain in his life is going badly. These results point to the interaction of personality and bottom-up life domain influences in determining life satisfaction.

NOTES

1. One also could examine the interaction between best and worst domain and the three-way interaction between happiness, best domain, and worst domain. A significant Best Domain × Worst Domain interaction would indicate that the effect of one's best domain varied depending on one's worst domain (and vice versa), and a significant three-way interaction would indicate that the Happiness × Best Domain varied depending on one's worst domain or that the Happiness × Worst Domain varied depending on one's best domain. Because our theory makes no prediction about these interaction effects, we did not include them in the model. However, we should note that when these terms were included, they were nonsignificant and the direction and significance of all other parameters was the same.

2. Again, we tested the Best Domain × Worst Domain interaction and the three-way Happiness × Best Domain × Worst Domain interaction. These interactions were nonsignificant and the direction and significance of all other parameters was the same when these terms were included.

REFERENCES

Campbell, A., Converse, P. E., & Rodgers, W. L. (1976). *The quality of American life.* New York: Russell Sage.

Diener, E. (1984). Subjective well-being. *Psychological Bulletin, 95*, 542-575.

Diener, E., & Diener, M. (1995). Cross-cultural correlates of life satisfaction and self-esteem. *Journal of Personality and Social Psychology, 68*, 653-663.

Diener, E., Larsen, R. J., Emmons, R. A., & Griffin, S. (1985). Satisfaction With Life Scale. *Journal of Personality Assessment, 49*, 71-74.

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin, 125*, 276-302.

Fredrickson, B. L., & Kahneman, D. (1993). Duration neglect in retrospective evaluations of affective episodes. *Journal of Personality and Social Psychology, 65*, 45-55.

Gable, S. L., Reis, H. T., & Elliot, A. J. (2000). Behavioral activation and inhibition in everyday life. *Journal of Personality and Social Psychology, 78*, 1135-1149.

Larsen, R. J. (1989, August). Personality as an affect dispositional system. In L. A. Clark & D. Watson (Chairs), *Emotional bases of personality.* Symposium conducted at the meeting of the American Psychological Association, New Orleans.

Larsen, R. J., & Ketelaar, T. (1989). Extraversion, neuroticism, and susceptibility to positive and negative mood induction procedures. *Personality and Individual Differences, 10*, 1221-1228.

Larsen, R. J., & Ketelaar, T. (1991). Personality and susceptibility to positive and negative emotional states. *Journal of Personality and Social Psychology, 61*, 132-140.

Lucas, R. E., Diener, E., & Suh, E. M. (1996). Discriminant validity of well-being measures. *Journal of Personality and Social Psychology, 71*, 616-628.

Lyubomirsky, S., & Ross, L. (1997). Hedonic consequences of social comparison. *Journal of Personality and Social Psychology, 73*, 1141-1157.

Matlin, M. W., & Gawron, V. J. (1979). Individual differences in Pollyannaism. *Journal of Personality Assessment, 43*, 411-412.

McFarland, C., & Miller, D. T. (1994). The framing of relative performance feedback: Seeing the glass as half empty or half full. *Journal of Personality and Social Psychology, 66*, 1061-1073.

Michalos, A. (1991). *Global report on student well-being*. New York: Springer-Verlag.

Oishi, S., & Diener, E. (2001). Re-examining the general positivity model of subjective well-being: The discrepancy between specific and global domain satisfaction. *Journal of Personality 69*, 641-666.

Oishi, S., Diener, E., Suh, E. M., & Lucas, R. E. (1999). Values as a moderator in subjective well-being. *Journal of Personality, 67*, 157-184.

Oishi, S., Schimmack, U., & Diener, E. (2001). Pleasures and subjective well-being. *European Journal of Personality, 15*, 153-157.

Oishi, S., Schimmack, U., Diener, E., & Colcombe, S. (2000). *The accessibility model of life satisfaction judgment*. Manuscript submitted for publication.

Rusting, C. L. (1998). Personality, mood, and cognitive processing of emotional information: Three conceptual frameworks. *Psychological Bulletin, 124*, 165-196.

Rusting, C. L., & Larsen, R. J. (1997). Extraversion, neuroticism, and susceptibility to positive and negative affect: A test of two theoretical models. *Personality and Individual Differences, 22*, 607-612.

Rusting, C. L., & Larsen, R. J. (1998). Personality and cognitive processing of affective information. *Personality and Social Psychology Bulletin, 24*, 200-213.

Schimmack, U., Diener, E., & Oishi, S. (2000). *Integrating personality theories and judgment theories of life satisfaction: The use of chronically accessible and stable sources*. Manuscript submitted for publication.

Schwarz, N., & Strack, F. (1999). Reports of subjective well-being: Judgmental processes and their methodological implications. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 61-84). New York: Russell Sage.

Suh, E., Diener, E., Oishi, S., & Triandis, H. (1998). The shifting basis of life satisfaction judgments across cultures: Emotions versus norms. *Personality and Social Psychology, 74*, 482-493.

Suls, J., Green, P., & Hillis, S. (1998). Emotional reactivity to everyday problems, affective inertia, and neuroticism. *Personality and Social Psychology Bulletin, 24*, 127-136.

Suls, J., Martin, R., & David, J. (1998). Person-environment fit and its limits: Agreeableness, neuroticism, and emotional reactivity to interpersonal conflict. *Personality and Social Psychology Bulletin, 24*, 88-98.

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