Purpose, Mood, and Pleasure in Predicting Satisfaction Judgments

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Abstract We examined the extent to which satisfaction with life, with one's self, and with one's day are predicted by pleasure, purpose in life, interest, and mood. In a sample of 222 college students we found that both satisfaction with life and self-esteem were best predicted by positive feelings and an absence of negative feelings, as well as purpose in life. By contrast, satisfaction with individual days was predicted by negative feelings, and very strongly predicted by positive feelings, but not by purpose in life. In predicting life satisfaction purpose in life provided a buffering effect for lower levels of mood. People high in purpose in life reported high levels of satisfaction even with moderate levels of mood. Thus, what makes a satisfying day is different from what makes a satisfying life or self. Life and self satisfaction were predicted significantly by purpose in life even after controlling for physical pleasure and affect balance, suggesting that they are more than just hedonic variables.

Keywords Daily satisfaction · Life satisfaction · Purpose · Feelings · Self-esteem

Is the "good life" one filled with purpose and meaning or one filled with pleasure? Philosophers have long debated whether pleasant feelings or something larger and longer-term—factors that give meaning and purpose to life—are more important. In modern times philosophers have revived this ancient debate, what Haybron (2008) terms "prudential

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psychology" because it focuses on the Socratic question of how one should live life. Psychologists have also given their attention to this question, especially where folk theories of happiness are concerned. In surveys of how everyday people conceptualize the "good life" researchers have found that people value both a sense of meaning and a feeling of happiness (King and Scollon 2011), even across cultures (Scollon and Wirtz 2010). The question of how people experience and desire is more than a matter of idle academic curiosity; it related directly to motivation, goal setting and well-being. In this study, we explore this issue from a psychological perspective. In particular we investigate how these two factors are weighted when people evaluate their lives.

Two forms of psychological well-being have been described—hedonic and eudaimonic (Ryan and Deci 2001). This conceptual distinction is being used with increasing frequency in the psychological literature on happiness (e.g., Fowers et al. 2010; Huta and Ryan 2010; Kopperud and Vittersø 2008). *Hedonic* well-being is based on pleasure, including both physical pleasures and pleasures of the mind. Positive and negative emotions are typically thought of as aspects of hedonic well-being (e.g., Kahneman 1999) because they are inherently pleasant or unpleasant. By contrast, *eudaimonic* well-being is based on exercising virtues such as gratitude, developing one's potential, and acting to the best of one's ability (Huta and Ryan 2010). Although the distinction is still controversial (see Kashdan et al. 2008), many place subjective well-being (SWB) as a general category in the hedonic grouping (Keyes and Annas 2009; Ryan and Huta 2009; Waterman 2007, 2008). However, it is not clear that the cognitive element of SWB—life satisfaction—is more hedonic in nature than eudaimonic. After all, when people evaluate their lives to arrive at satisfaction judgments they can, if they choose, take any aspect of life into account including meaning and purpose, challenge, and achievement. Thus, a major purpose of the present study is to explore to what degree purpose in life predicts satisfaction with life and self, after controlling for hedonic factors such as physical pleasures and pain, as well as positive and negative feelings. We hypothesize that life satisfaction and self-esteem can be influenced both by hedonic and what are called eudaimonic aspects of life, in this case, purpose in life.

When people evaluate their lives, they use many types of information, and personal factors such as culture and personality influence how this information is weighted and processed (Schimmack 2008). These personal factors lie largely outside the limits of this paper; but the issue of the relative contributions of various information is our central focus. One type of information people naturally include in life evaluations is appraisals of positive feelings, as these reflect their ongoing evaluations of events happening to them. If a person experiences frequent positive feelings, it is because she feels that the events and circumstances of her life are going well. Contrariwise, if people feel frequent unpleasant emotions, it is likely that they appraise many aspects of their lives in a negative way. It is also possible that purpose in life makes a unique contribution to life evaluations as well. Purpose is the manifestation of core values and interests, and provides a psychological framework for pursuing goals (Kashdan 2009). While, in most nonhuman animals, goals are immediate; humans tend to engage in relatively long-term planning and such planning can be quite beneficial to both survival and flourishing. In addition, the highly social nature of humans means that they can be evolutionarily successful by helping others around them to also thrive. For instance, human parents benefit when they contribute to the well-being of their offspring and people who help others are more likely to receive support in return. In both cases, as well as in others, people might sacrifice short term pleasures for longer term gains in purpose (Carver and Scheier 1998). Thus, for humans, purpose in life—factors beyond immediate pleasure—might be inherently rewarding and therefore might contribute to life satisfaction beyond a person's pleasant and unpleasant feelings.

In the present paper, we examine three forms of cognitive evaluation: life satisfaction, self-esteem, and daily satisfaction. Our hypothesis is that life satisfaction and self-esteem will by influenced, at least in part, by feelings because moods and emotions are likely to color how we see our lives. However, we hypothesize that purpose in life can also add to a person's life evaluation and self-esteem because it can make activities meaningful and desirable to the person even in the absence of pleasant feelings. Indeed, a person might evaluate activities and events as positive even if they are unpleasant, especially if they are concordant with one's values and seen as contributing to long-term goals (Sheldon and Elliot 1999). In contrast to life satisfaction and self-esteem, we hypothesize that a satisfying day can often be characterized as a pleasant day. Although achievement of long-term goals might increase the satisfaction with the day, often a day is too short to make substantial progress toward long-term goals. Thus, we hypothesize that physical pleasures and pleasant feelings will increase people's satisfaction with the day, and negative feelings will detract from it, but that having purpose in life will be less relevant.

Our final goal in the current research is to examine the association of interest with satisfaction. Vitterso et al. (2009) suggest that life satisfaction is heavily weighted toward pleasure, and does not reflect the positive influence of interest and engagement. In a small sample they found that pleasant stimuli predicted life satisfaction, but not interest and engagement. Thus, in the following study we examine whether the frequency of "interest" each day was associated with the three forms of satisfaction judgments.

1 Methods

1.1 Overview

We analyzed three forms of satisfaction judgments: Life Satisfaction, Daily Satisfaction, and Self-esteem (satisfaction with the self). We predicted these dependent variables from the average of daily feelings (both positive and negative) over approximately 7 weeks. We also entered purpose in life as a predictor of satisfaction, as well as the interaction of purpose and feelings. Finally, we entered a balance score of physical pleasures versus pains as a predictor. Our prediction was that feelings would predict all forms of satisfaction, that purpose would predict life satisfaction and self-esteem, and that physical pleasures versus pains would predict daily satisfaction, but less so the other two types of satisfaction.

1.2 Respondents

Data were collected in 1991 and 1992 from respondents as part of a semester-long course on well-being. The participants were undergraduate students at the University of Illinois who provided research information in exchange for feedback about various aspects of their personalities, as well as lectures on the topic of well-being. There were 222 respondents (110 men and 112 women) in the current study, with only a few scattered instances of missing variables.

1.3 Measures

Respondents completed end-of-the-day reports each evening for 52 days, in which they reported their satisfaction with the day, the frequency of specific emotions and interest that

day, and the amount of physical pleasure they experienced that day. The variable Daily Satisfaction (DS) is the average of how frequently participants were satisfied across the 52 days and is one of the three primary dependent variables of this study. Pleasant Emotions consisted of the daily average frequency of "Happiness," "Joy," "Affection," and "Love," while Unpleasant Emotions consisted of the daily average of "Anger," "Anxiety," "Depression," "Guilt," "Jealousy," "Sadness," and "Unhappiness." "Interested" reflected the average frequency of interest across the 52 days. Responses were reported on a 1–7 frequency scale ranging from "None" to "Always." The Cronbach alpha reliability values for Daily Pleasant Emotions was 0.87 and Daily Unpleasant Emotions was 0.92.

The life satisfaction score consisted of the mean of three administrations of the Satisfaction with Life Scale (SWLS; Diener et al. 1985) spaced throughout the college semester. This average is conceptually distinct from the Daily Satisfaction ratings. The daily satisfaction ratings reflect satisfaction with individual days, but the three SWLS ratings represent global satisfaction with a respondent's life. The purpose of averaging the three administrations of the SWLS was to reduce the error of measurement and give a more reliable score, as well as insure that the life satisfaction ratings were obtained over approximately the same temporal period as the daily satisfaction ratings (reliability?)

Purpose in life (see Crumbaugh 1968), was measured as the sum of the responses to three items: "My personal existence is" (rated from "utterly meaningless, without purpose" to "very purposeful and meaningful"), "I regard my ability to find a meaning, purpose, or mission in life as" (rated from "very great" to "practically none", reverse scored), and "I have discovered" (rated from "no mission or purpose in life" to "clear-cut goals and a satisfying life purpose"). Cronbach's alpha for the three-item purpose scale was 0.76.

The Rosenberg Self-Esteem Scale (Rosenberg 1965) is a widely-used measure of self-esteem that represents people's evaluations of themselves, and includes items such as "I feel that I have a number of good qualities." (reliability?). Our measure of pleasures versus pains included items representing specific pleasures such as eating, engaging in sex, listening to music, dancing, drinking alcohol, touch, and seeing beauty. Discomforts or pains were represented by items covering unpleasant experiences such as those related to thirst and hunger, being cold or hot, fatigue, illness, and pain. Each experience was rated for frequency in the person's life, from 1 (Never) to 7 (Always), and the balance score was computed by subtracting discomforts from pleasures.

2 Results

Because a few participants had missing data, our N for most analyses was from 212 to 214. The mean SWLS score was 24.4 (SD = 5.3), which is slightly to moderately satisfied, and consistent with past findings from research employing a wide range of samples (e.g., Biswas-Diener et al. 2005). The Daily Satisfaction mean was 3.5 (SD = 1.1), which represented being satisfied slightly less than half of the time (which would be represented by a 4.0). The SWLS correlated with Daily Satisfaction, $r = 0.43$ ($p < 0.001$), and with Self-esteem, $r = 0.65$ ($p < 0.001$). Self-esteem correlated with Daily Satisfaction, $r = 0.44$ ($p < 0.001$).

In Table 1, we present correlations and regression results for the predictors and satisfaction variables. As can be seen, interest and pleasant feelings were strong correlates of daily satisfaction, and continued to predict when entered with the other predictors. Purpose

Table 1 Regression and correlation analyses

Daily satisfaction (52 days)	Daily satisfaction (52 days)				Life satisfaction (3 occasions)				Self-esteem (Rosenberg)			
	β	p	r	p	β	p	r	p	β	p	r	p
Predictors												
Pleasant feelings	0.47	0.001	0.66	0.001	0.22	0.01	0.34	0.001	0.13	ns	0.33	0.001
Unpleasant feelings	−0.020	0.001	−0.19	0.01	−0.25	0.001	−0.31	0.001	−0.25	0.001	−0.33	0.001
Pleasure/pain bal.	−0.03	ns	0.22	0.001	0.10	ns	0.24	0.001	0.17	0.01	0.29	0.001
Purpose in life	0.02	ns	0.27	0.001	0.25	0.001	0.42	0.001	0.34	0.001	0.48	0.001
Interested	0.33	0.001	0.60	0.001	0.01	ns	0.21	0.01	0.04	ns	0.23	0.001
Purpose X affect Bal.	−0.02	ns	−0.03	ns	−0.13	0.05	−0.18	0.01	−0.06	ns	−0.13	ns
Interaction												

$β$ denotes regression coefficients, r denotes correlation
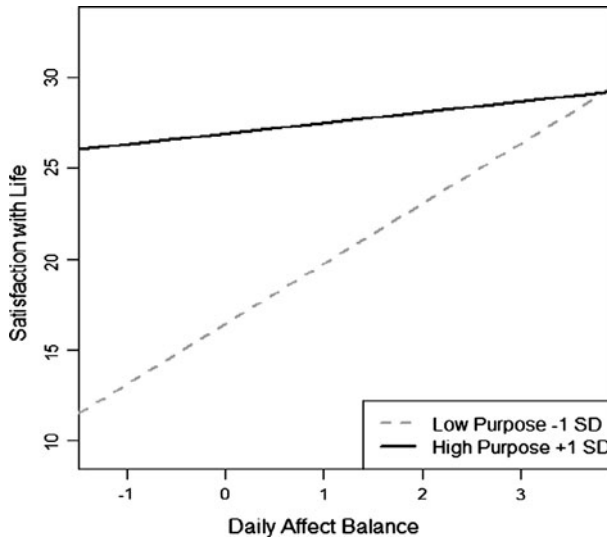
Fig. 1 Purpose in life buffers against low positive feelings

in life and pleasure/pain significantly correlated with daily satisfaction, but did not predict when entered with the other predictors. This suggests that these predictors' association with daily satisfaction is perhaps due to a general positivity, and not to something unique about these variables. In contrast, for life satisfaction, pleasant and unpleasant feelings, as well as purpose in life, were correlated and continued to predict it even when all predictors were entered into the regression. In addition, the interaction between purpose in life and daily affect balance (pleasant minus unpleasant feelings) also predicted life satisfaction. Finally, self-esteem was predicted by low unpleasant feelings and purpose in life, and, unexpectedly, pleasures versus pains. Thus, each of the three types of satisfaction showed a somewhat different pattern of predictors. Purpose in life was a moderately strong predictor of both self-esteem and life satisfaction.

There were several sex differences in key variables, but control for sex of participants did not make a substantial difference in the pattern of findings.

Figure 1 shows the relation of life satisfaction and feelings, as moderated by purpose in life. As can be seen, the significant interaction between purpose in life and affect balance in predicting life satisfaction is due to those who experience fewer positive feelings. If respondents lack purpose in life, they are also likely to be low in life satisfaction. However, if they have high purpose in life, they are almost as satisfied with life as are their counterparts who experience much more positive feelings. For those high in purpose in life, the positivity of feelings does not appear to have a large impact on life satisfaction. However, it should be mentioned that few individuals had low positive feelings and high purpose in life. In fact, there were no participants with very low affect balance and high purpose in life. The figure suggests that for those born with a less happy temperament, or those living in difficult life circumstances, purpose in life might compensate to some degree in creating life satisfaction. However, caution is in order because the present findings are correlational, and further experimental and longitudinal studies are needed to firmly establish the causal relation among the variables.

A factor-analysis of the dependent and independent variables revealed that the first factor accounts for 47% of the variance in responses. This pattern can be seen in the correlations, where all variables correlate significantly with each other. This suggests that there is an overall positivity that influences responding to all of the variables. However, a second factor has an eigenvalue above one, and explained an additional 17% of the variance in responding. When allowed to be non-orthogonal, the two factors correlated 0.30. The highest loading variables on the first factor are Self-esteem, Life Satisfaction, and Purpose in Life. In contrast, the highest loading factors on the second factor were Daily Satisfaction and Positive Feelings. Thus, the factor-analysis confirmed the pattern found in the regression analyses.

A final area of interest for our analyses concerns the possibility that the findings might be the product of socially desirable responding? We believe this is unlikely for several reasons. First, the differential prediction between self-esteem and life satisfaction on the one hand, and daily satisfaction on the other, cannot be easily explained by socially desirable responding. Second, we examined an additional measure—life satisfaction taken in an oral manner during a face-to-face interview. This measure is more likely to reflect respondents' desire to give a socially desirable response than the other administrations of the Satisfaction with Life Scale that were completed in large groups in a quasi-anonymous manner. The face-to-face life satisfaction scores produced a very similar pattern in relation to the predictors. When we calculated a difference score between the standard administrations and the face-to-face administration scores, there were no significant correlations, thus suggesting that socially desirable responding did not influence the responses to a significant degree.

3 Discussion

The question of how purpose and emotion relate to overall well-being, and cognitive aspects of well-being in particular, is an interesting one. We hypothesized that hedonic aspects of well-being, such as emotions, and non-hedonic aspects of well-being, such as purpose, would both relate to judgments of life satisfaction, but might relate in unique ways. Indeed, we found clear evidence that both feelings and non-hedonic factors such as purpose are associated with satisfaction with life. Even controlling for pleasures, both physical and emotional, we found that purpose predicts life satisfaction and self-esteem. Indeed, purpose in life was the strongest correlate of both self-esteem and life satisfaction. However, purpose did not predict satisfaction with the day once pleasures were controlled. Rather, daily satisfaction was strongly predicted by positive feelings and interest. Interest was significantly associated with self-esteem and life satisfaction, but this associated was reduced to close to zero when pleasures were controlled. Life satisfaction was most strongly related to purpose in life, and this association remained among the strongest even when pleasant feelings were controlled.

Importantly, purpose and feelings showed an interaction such that those respondents who were lower in feelings balance (positive minus negative feelings) still reported high life satisfaction if they also had high purpose in life. Indeed, for those high in purpose in life positive versus negative feelings had only a small association with overall life satisfaction. This suggests that the strong experience of purpose may buffer people from the negative psychological effects of frequent negative emotion. It should be noted, however, that people with purpose in life rarely reported very low levels of affect balance. Purpose and positive feeling balance appear to co-occur and likely relate to one another (see King and Hicks 2009, for a more detailed evaluation of this phenomenon). Physical pleasures

versus pains were associated with the three forms of satisfaction. However, when feelings were controlled, an association remained only for self-esteem. This finding was unexpected, but perhaps resulted from the fact that people high in self-esteem are better able to enjoy life's pleasures, and are less likely to notice minor pains.

Our findings are important in showing that various types of satisfaction are associated with different predictors. For instance, where purpose in life predicts life satisfaction and even protects to some extent against lower affect balance, it does not predict daily satisfaction, which is strongly dependent on positive moods and emotions during the day. Thus, whereas daily satisfaction was largely hedonic in our sample, life satisfaction included both hedonic and "eudaimonic" elements.

One can liken the two forms of satisfaction—general life satisfaction and satisfaction with one's day—to the viewing of a movie. A film that is rated highly from moment-to-moment might consist of frequent action, sex, and narrative tension. A movie that is rated as great cinema, however, is one in which the individual elements are patterned and juxtaposed in interesting and meaningful ways, and in which the overall narrative and character development are compelling. Great movies also have their sad and slow moments, with the whole being greater than the sum of the parts. In a manner similar to sad moments in a great movie, negative feelings often detract from satisfaction with the day, but in some cases can be seen in the long-run as a source of growth and positive change that increases overall life satisfaction. If individuals experience occasional hardship and suffering that ultimately helps them achieve their goals in life, they can achieve life satisfaction despite some displeasure. The best films contain both on-going momentary interest and a long-term sense of meaning.

It is interesting that physical pleasure and pain contributed much less to judgments of satisfaction than did pleasant and unpleasant feelings. One possible reason for this is that emotions and moods are more than just pleasant and unpleasant feelings—they are responses to appraisals of situations (Russell 2003). Thus, to think of feelings as strictly hedonic in nature misses the fact that they are responses to evaluations that the person makes of circumstances and events in their lives. As such, feelings are responses to the person's goals, morals, and values, not simply hedonistic responses.

A limitation of our study is that the findings are based on a sample of American college students, and might not generalize to other samples or cultures. Thus, it will be important in future studies to examine the pattern of findings in other groups. What our results reveal, however, is that at least in some groups purpose in life can be important to long-term life evaluations but not important to short-term evaluations such as daily satisfaction. These results might not generalize to other groups. For instance, in older samples levels of physical pain might be more important to life satisfaction. In samples with less achievement motivation than college students, purpose in life might not be so relevant to life satisfaction. Thus, what our results reveal is that some people do take purpose in life into account in judging their life satisfaction, but the findings do not indicate whether most people do this. Nonetheless, our findings suggest that life satisfaction is not inevitably heavily weighted with hedonic factors, and can reflect purpose. Our findings also indicate the physical pleasures might not be as important to satisfaction judgments as emotions, in part because the latter include an appraisal of life.

Note: We checked the generality of our findings with the Gallup World Poll, a representative sample of the world. In the first three waves of the poll, 237,216 respondents reported on their purpose in life, as well as life satisfaction and feelings. The correlation was $0.05 (p < 0.001)$ between purpose and life satisfaction (the ladder scale) across the world, but

this figure varied greatly by nation. The correlations ranged from -0.09 in Australia to 0.24 in Vietnam. When controlled for positive and negative feelings, the betas for purpose were -0.08 for Australia and 0.20 ($p < 0.001$) for Vietnam. Thus, it appears that the association of feelings of purpose in life and life satisfaction differ by society, but certainly can be significant in some populations, and persist even after controlling pleasant versus unpleasant feelings. Because purpose was measured with a simple yes–no response to a single question, the correlations would undoubtedly have been greater had a longer Likert scale been used.

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