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Affective Well-Being in Retirement: The Influence of Values, Money, and Health Across Three Years

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Abstract: In this study, personal values, health, and financial status were investigated as determinants of affective well-being in a sample of 371 recent retirees across 3 years. Personal values, measured with the Portrait Value Questionnaire (Schwartz et al. in J Cross Cult Psychol 32:519–542, 2001), were hypothesized to show direct links to positive affect (PA) and negative affect (NA) as well as to moderate the association between financial and health status and affective well-being. Using structural equation modeling, higher PA was predicted by female gender, better finances, fewer illnesses, and higher self-transcendence (ST), openness to change (OC), and conservation values. Higher NA was predicted by female gender, lower finances, more illnesses, higher self-enhancement (SE) and lower OC values. SE and OC values also moderated the association between financial status and PA. Longitudinal analyses indicated a relatively stable pattern of associations across 3 years. While the impact of finances on affect was stable over time, the effects of health and values increased across 3 years.

1 Introduction

The leading edge of the baby boom cohort (born between 1946 and 1964) turned 60 in 2006 and as a result, retirees will represent an increasingly large proportion of the population over the next decades (Statistics Canada 2005). Understanding well-being in retirement is, therefore, an issue of growing importance for both researchers and for the aging population. Retirement, while not typically a crisis, is a unique transition in the lifespan that involves changes in roles, relationships, and daily routines as well as shifts in income and in health. Retirement affords increased opportunities for living the good life, such as spending time with friends and family and pursuing satisfying activities, but it is also a hallmark of the transition to the later stages of life and an introduction to the realities of aging. It brings with it an increased salience of age-related physical and cognitive changes and of the mortality of relatives, friends, and the self.

While free time without the pressures of work may seem an inevitable boon to well-being, this is not necessarily the case. The impact of retirement on well-being has been a subject of much debate among researchers. Recent research has demonstrated that the retirement transition is complex and variable and is characterized by non-uniformity in adjustment patterns and by multiple pathways to well-being through both contextual and psychological variables (e.g., Kim and Moen 2001; Pinquart and Schindler 2007; Szinovacz and Davey 2004; van Solinge and Henkens 2008; Wang 2007). Research has consistently indicated the importance of health and adequate finances for well-being in retirement (e.g., van Solinge and Henkens 2008; Wang 2007). Little research, however, has focused on the motivational determinants of retirees' well-being. Given that retirement represents a shift from structured to unstructured time, motivational factors are likely an important determinant of how well retirees cope with the challenges of retirement. These include adjusting to the loss of the work role and associated social ties in addition to establishing a new and satisfying post-retirement lifestyle. Motivational factors such as personal values,

then, in so far as they help to shape attitudes, coping styles, and behavior, are likely to play an important role in the subjective well-being of retired adults.

One of the primary theoretical frameworks for understanding happiness among aging adults, socio-emotional selectivity theory (Carstensen et al. 1999), is based on motivational changes related to perception of future time. This theory proposes that when future time is perceived as limited, older adults tend to shift their priorities from future-oriented goals focused on expanding horizons to present-oriented goals aimed at emotion regulation and emotionally satisfying interactions and pursuits with close family members and friends. If retirement is understood as a hallmark of aging and the beginning of the later stages of life, it may be a time when the project of building for one's personal future becomes less important for well-being compared to an emotionally-meaningful present.

The aim of this paper is to examine how personal values as motivational factors may play a role in the affective component of subjective well-being of recent retirees. In particular, we investigate personal values from the Schwartz (1992) value theory and test how they, both directly and in combination with finances and health, are linked to the emotional experiences of retirees (positive and negative affect). Given the transitional nature of the early years of retirement, we also test the stability of these patterns across a period of 3 years.

1.1 Values

Values represent abstract, global aspirations of how to live based on what is most important in life. Values are separable from goals in that goals represent more concrete aspirations for the future. While goals may be accomplished as particular projects, values are unending projects and represent relatively stable motivational traits. Values, then, can be understood as desirable, trans-situational goals that serve as guiding principles in people's lives (Schwartz 1992). Despite conceptual overlap with research into goals, values represent a distinct and under-studied motivational construct, especially as they relate to well-being in general and to the well-being of older adults in particular.

1.1.1 The Schwartz (1992) Value Theory

Although a wide variety of value constructs and measurement tools have been developed to assess personal values, the Schwartz (1992) value theory is arguably the most empirically supported and widely used theory of personal values in the current literature. The Schwartz (1992) value theory was developed as an integration and extension of the diverse values literature that preceded it. It postulates the existence of ten universal values that exist for all people based on the fundamental needs of human beings. The ten values are benevolence, universalism, self-direction, stimulation, hedonism, achievement, power, security, tradition, and conformity. The Schwartz (1992) model of values has been extensively investigated in terms of both structure and content. Due to space restrictions, this literature will not be reviewed here, but more comprehensive reviews are available elsewhere (e.g., Schwartz et al. 2001; Schwartz and Boehnke 2004; Schwartz and Rubel 2005).

The ten values have also been conceptualized as forming four higher-order value types Schwartz 1992; Schwartz and Boehnke 2004): self-enhancement, self-transcendence, openness to change, and conservation. These four values are the focus of this study. Self-enhancement values (comprised of power and achievement) emphasize pursuit of status, success, and dominance over others and are consistent with materialistic values in other value paradigms (Burroughs and Rindfleisch 2002). Self-transcendence values (comprised of universalism and benevolence) emphasize concern for the welfare of others and for the natural world, and are consistent with community values in other value paradigms (Burroughs and

Rindfleisch 2002). Conservation values (comprised of security, tradition, and conformity) emphasize self-restriction and the preservation of the status quo, and are consistent with religious and family values in other value paradigms (Burroughs and Rindfleisch 2002). Finally, openness to change values (comprised of self-direction, stimulation, and hedonism) represent an emphasis on ''the proactive and voluntary search for stimulation, novelty, and change and on free and autonomous thinking and behavior'' (Oreg et al. 2008, p. 937) and are consistent with variety-seeking values in other value paradigms (Burroughs and Rindfleisch 2002).

1.2 Values and Subjective Well-Being

Subjective well-being is usually conceived of as a broad domain of interest rather than a specific construct, and it encompasses multiple components including pleasant or positive affect, unpleasant or negative affect, and cognitive judgments about satisfaction with life (Diener et al. 1999). We focus here on the two affective components of subjective well-being—positive affect and negative affect, which are considered relatively independent constructs (Schimmack 2008). The presence of positive affect reflects pleasurable engagement in life, whereas its absence reflects sadness and lethargy (Watson et al. 1988). The presence of negative affect represents a variety of forms of distress whereas its absence reflects calmness and serenity (Watson et al. 1988). High negative affect has been linked to depression and several anxiety disorders whereas low positive affect relates primarily to depression (Brown et al. 1998).

Specific types of aspirations (intrinsic and extrinsic) have been linked to subjective-well-being. The self-determination theory of subjective well-being (Ryan et al. 1996; Deci and Ryan 2000) proposes that intrinsic aspirations (i.e., pursuing self-acceptance, affiliation with others, and contribution to the community) promote well-being because they satisfy basic needs for competence, autonomy, and relatedness. Extrinsic aspirations (i.e., pursuing contingent approval or external signs of worth), on the other hand, are thought to interfere with basic needs satisfaction, and therefore be associated with reduced well-being (Deci and Ryan 2000). Research into materialistic values (i.e., beliefs about the central importance in life of money, possessions, image, and popularity: Kasser and Ahuvia 2002; Kasser and Ryan 2001) has supported the self-determination theory of subjective wellbeing. Materialism is associated with lower levels of happiness and life satisfaction (Chan and Joseph 2000; Hellevik 2003; Kashdan and Breen 2007; Kasser and Ahuvia 2002; Kasser et al. 2004; for a review, see Burroughs and Rindfleisch 2002) whereas intrinsic value orientations are associated with higher well-being (Brown and Kasser 2005; Kasser 2004; Kasser and Ryan 1993; Sheldon 2005; Sheldon et al. 2004; Sagiv et al. 2004).

Evidence also suggests that it is not just particular value orientations that promote well-being, but in addition values act as a moderator of the link between activities and life satisfaction (Oishi et al. 1999). Activities are therefore satisfying to the extent that they are consistent with important values, and satisfaction in valued domains (compared to non-valued domains) is most important for global ratings of life satisfaction (Oishi et al.). Activities themselves are likely to be more satisfying, therefore, if they represent successes in valued domains. The extent to which individuals are aware of their activities as representative of their values (i.e., generating activities from an explicit value system), however, remains unclear. Recent research suggests that values tend to relate to more abstract and long-term planning than to concrete and short-term goals (Eyal et al. 2009; Torelli and Kaikati 2009).

Within the Schwartz model of values, only one study has investigated associations among values and subjective well-being and it focused on younger and working adults. Sagiv and Schwartz (2000) assessed ratings of affect and life satisfaction among student and adult samples across three cultures (West Germany, the former East Germany, and Israel) and found that values were associated with only the affective component of subjective well-being (positive affect ratings). In all of these cultures, achievement, self-direction, and stimulation correlated with higher positive affect. In contrast, Sagiv and

Schwartz (2000) found that tradition, conformity, and security values correlated with lower positive affect ratings. An effect of context was also established in that for business students power values were associated with increased positive affect while for psychology students power values were associated with reduced positive affect.

While Sagiv and Schwartz's (2000) study established theoretically sound links between values and well-being, it left several questions unanswered. Although the authors assessed negative affect, scores were not analyzed due to the poor reliability of the measure, and therefore no conclusions were possible about the link between values and negative emotions. Further, demographic variables, which can explain up to 15% of variance in subjective well-being outcomes (Diener et al. 1999), were not examined, preventing conclusions as to whether values contribute to well-being above and beyond basic demographic characteristics. Our study attempts to address these limitations and the general lack of values research with older adults by providing an analysis of both positive and negative affect outcomes while controlling for relevant demographic variables using a sample of retired adults.

1.3 Lifespan and Contextual Considerations

The same set of ''healthy'' values (achievement, self-direction, stimulation) identified by Sagiv and Schwartz (2000) may not apply to older, retired adults. Similarly, the value associated with lower affective well-being (tradition, conformity, and security) may not have the same negative function for well-being under different life circumstances and at a later stage of life. Extrapolating from socio-emotional selectivity theory (Carstensen et al. 1999), the priorities and goals of older adults stem from a longer personal history, different life context, and more time-limited future compared to younger adults. What constitutes ''healthy values'' for retirees may differ, then, compared to findings from younger and working populations.

Values were hypothesized to have direct links with well-being for retirees, but also to interact with other contextual variables to promote or diminish subjective well-being. In theory, some values may serve a protective function for retirees, buffering the effects of limitations in health and financial domains and in this way promoting and protecting wellbeing. Other values are potentially a source of frustration and may contribute to reduced well-being in the context of health and financial limitations. The particular hypothesized links and interactions are outlined below.

Openness to change values are related to the pursuit of flexibility, creativity, independence, and pleasure. Consistent with the notion of emotionally meaningful and present-oriented goals, openness to change values create an opportunity for the pursuit of satisfying interactions and activities that in turn are likely to promote positive emotions. Openness to change values may also protect well-being in retirement when health or financial difficulties are encountered through promoting flexibility and resilience in the face of challenging life circumstances. Openness values may be of less importance for affective well-being, however, under more stable life circumstances involving good health and high financial status when basic conditions of life provide fewer challenges to well-being.

Conservation values are related to the pursuit of conformity to social norms, upholding tradition and customs, and maintaining security of the individual person and of society. Conservation values have been found to be higher among older adults (Caprara et al. 2003), suggesting they have increasing importance across the lifespan. Among younger adults they are associated with lower affective well-being (Sagiv and Schwartz 2000) and guilt-proneness (Silfver et al. 2008). In contrast, among retirees conservation values may be linked to enhanced affective well-being through their emphasis on tradition or religion which may provide retirees with social connectedness, purpose, and meaning, as well as through their emphasis on

maintaining health. As such, conservation values are also consistent with emotionally-meaningful present-oriented goals (Carstensen et al. 1999).

Self-enhancement values, herein referred to as enhancement values, are related to the pursuit of status, control over others, success and admiration. These values are associated with higher positive affect among younger and working adults (Sagiv and Schwartz 2000), but conceptually overlap with materialistic and extrinsic goals that have shown links to reduced well-being (Deci and Ryan 2000; Kasser 2004). In the context of retirement enhancement values create a framework for potential goal frustration and associated negative emotions among retirees because valued goals, such as the accumulation of wealth, recognition for accomplishments, and control over others may become more difficult to attain in a post-employment lifestyle. When combined with health or financial difficulties, enhancement values were hypothesized to have a particularly deleterious effect in retirement as valued goals become increasingly unattainable. Enhancement values may have less impact on affective well-being, however, under more stable life circumstances involving good health and high financial status, when basic conditions of life do not conflict with the pursuit of valued goals.

Self-Transcendence values, herein referred to as transcendence values, are oriented toward ends larger than the individual, and involve concern for the welfare of others and of the natural world. Among younger and working adults, transcendence values are not associated with affective well-being (Sagiv and Schwartz 2000) and are linked to guilt-proneness (Silfver et al. 2008). For retired adults, however, these values are consistent with present-oriented and emotionally meaningful goals and may promote positive emotions given their pro-social and affiliation motives and their compatibility with Erikson's (1959) concept of generativity. Generativity involves a concern for future generations, represents a key developmental challenge of middle adulthood, and is associated with a variety of measures of well-being among middle-aged adults (e.g., Ackerman et al. 2000; An and Cooney 2006; McAdams et al. 1993).

1.4 The Current Study

In light of the gaps in our knowledge about the links between values and well-being in retirement, the general goals of this study were (1) to investigate the direct associations between retirees' values and their reports of positive and negative affect, taking into account important demographic determinants of well-being (gender, finances, and health); (2) to test for interactions between financial/health status and values as a measure of values' potential protective and deleterious effects on affective well-being; and (3) to test the stability of these patterns longitudinally across 3 years. Four higher-order value categories from the Schwartz (1992) value theory were selected, rather than all ten personal values, in order to include all content of the Schwartz value system while keeping the number of variables to a manageable size for the sake of statistical model building using structural equation modeling. Based on the literature reviewed above, considering the particular opportunities and constraints of retirement, and taking into account the potential impact of retirement on future time perspective, we proposed the following hypotheses:

Hypothesis 1 Higher affective well-being will be associated with openness to change, transcendence, and conservation values, whereas lower affective well-being will be associated with enhancement values among retirees.

Hypothesis 2 Openness to change and enhancement values will interact with financial and health status in predicting affective well-being. Those low in openness or high in enhancement values and simultaneously low in financial or health status are likely to experience reduced affective well-being.

In addition to testing these hypotheses, another aim was to explore the stability of the links between values and well-being and any interactions of values with context over time. Especially in the case of the

retirement transition, adaptation to new financial and day-today realities occurs across several years. Do values, finances, and health status predict well-being in a static, trait-like pattern across time, or does the pattern evolve with the adjustments inherent in the early years of retirement? Further, do values continue to exert an effect on well-being across time, taking into account baseline measurements? The third part of this study explored the stability of direct effects and interactions across 3 years.

2 Method

2.1 Participants

Participants were part of a larger longitudinal study investigating adjustment to life in retirement. Information about the retirement study was distributed by mail to recently retired employees through retirees' associations as well as ads in both French and English local newspapers over a period of 1 year. Criteria for participation in the study included fluency in French or English, having worked full-time for a minimum of 20 years, not currently being in paid employment for more than 10 h per week, and mobility permitting attendance of annual testing sessions at Concordia University. A total of 446 retirees participated. Of these, 13 (2.9%) were eliminated by the researchers because of difficulty understanding and/or following instructions or due to mistakes regarding date of retirement, leaving a sample size of 433 retired adults. For the purpose of longitudinal analyses, the sample for this study was restricted to the participants who were retained across three annual assessments, for a final sample size of 371, and a retention rate of 85%. MANOVA analyses revealed no significant differences between those who dropped out of the study and those who were retained through to T3 on demographics (age, gender, finance, illnesses) and outcome variables (positive and negative affect). Of 62 participants who were not retained for the second and third assessments, 35 were not reachable or did not respond when contacted; 22 withdrew because they were too busy, were no longer interested, or had health problems; 4 were eliminated by the researchers because they had difficulty understanding and/or following instructions in the materials; and one participant was known to have died.

2.1.1 Demographics

The demographic characteristics of the 371 retirees in this study were as follows: 47.4% male ($n = 176$) and 52.6% female ($n = 195$); age ranged from 44 to 77 years, with a mean age of 59.05 years (SD = 5.0). Although 59 years appears to be a relatively young mean age for a sample of retirees, the age of this sample is characteristic of Canadian age of retirement at the beginning of the twenty-first century (Statistics Canada 2006) due in part to public sector early retirement incentives that began in the 1980s (Bowlby 2007). Participants were generally healthy and well educated ($M = 14.90$ years of education, SD = 2.50), had worked fulltime for an average of 34.02 years (SD = 6.62), and were recently retired, with an average duration of retirement of 1.9 years (SD = 1.81). Personal income in retirement, for the subsample that reported it ($N = 280$) ranged from 0 to $250,000 with a median retirement income of $41,250. The majority of the sample was either married (52%) or had a common-law partner (11.1%); 19.1% were divorced; 13.5% were single; and 3.8% were widowed. In terms of language, 61% of participants completed the questionnaires in French and 39% in English.

2.2 Materials

All participants completed a consent form, demographic questionnaire, and a series of other self-report measures. Only the materials relevant to the current study are described here. All English measures were translated into French appropriate to the Quebec linguistic context.

2.2.1 The Portrait Value Questionnaire IV (PVQ: Schwartz et al. 2001)

The PVQ includes verbal portraits of 40 different people, gender matched with the participant. Each portrait describes a person in terms of their goals and what is important to them. For example: "It is very important to him to help the people around him. He wants to care for their well-being" describes a person for whom benevolence values are important. Participants indicate how much the portrait is similar to them on a 6-point scale, labeled from ''very much like me'' to ''not like me at all.'' Transcendence, enhancement, openness to change, and conservation values were measured by 10, 7, 10, and 13 items, respectively, consistent with Caprara et al. (2003). Possible scores on the PVQ range from 1 to 6 for each value, where 1 represents a value of no importance to an individual, and 6 represents a value of high importance. Each individual's score for a value represents their average score across all of the items representing that value.[1] The Cronbach's a coefficients for the four higher-order value categories were as follows: transcendence (.81); enhancement (.82); openness to change (.79); and conservation (.81). Test–retest reliability of an earlier version of the PVQ has been reported to be moderate to high, ranging from .66 to .88 (Schwartz et al. 2001). The values as measured by the PVQ have shown predictable associations with a variety of attitudes and behaviours (Schwartz et al. 2001), as well as with a second method of measuring the same ten value constructs, the Schwartz Value Survey (Schwartz 1992).

2.2.2 Positive and Negative Affect Scale (PANAS: Watson et al. 1988)

The PANAS is a 20-item self-report questionnaire consisting of a list of words that describe different feelings and emotions. Participants were asked to rate the extent that they felt a given feeling or emotion during the past few weeks on a 5-point scale that ranges from ''very slightly or not at all'' to ''extremely.'' Ten items reflect positive affect (interested, excited, strong, enthusiastic, proud, alert, inspired, determined, attentive, active); ten other items reflect negative affect (distressed, upset, guilty, scared, hostile, irritable, ashamed, nervous, jittery, afraid). The Cronbach a coefficients were .90 for positive affect and .88 for negative affect in the current study. The PANAS has shown adequate test–retest reliability and scale validity (Watson et al. 1988). Higher scores on the two affect subscales indicate higher levels of positive or negative emotions experienced in the past few weeks.

2.2.3 Financial and Health Status

Financial situation was assessed by one item on the demographic questionnaire: ''Compared to other people of your age that you know, how would you rate your financial situation?'' Participants responded on a 7-point scale that ranged from ''a lot worse that most'' to ''a lot better than most''. Higher scores represent better self-rated financial status relative to other people of a similar age. This subjective measure of finances has been associated with retirement satisfaction (Pushkar et al. in press) as well as with favorable self-perception of current functioning for older adults (Pushkar et al. 2003). Test–retest

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[1] Ipsative scores are often used with the PVQ (Schwartz and Rubel, 2005). Ipsative scores are calculated by taking each individual's mean score across all 40 PVQ items and subtracting it from the individual's mean score for each value. The result is a deviation score representing the relative importance of each value in the system. In preliminary analyses, ipsative value scores showed almost no association with the outcome measures, whereas the raw mean scores showed robust associations. The raw mean scores were therefore used with the understanding that results should be interpreted in terms of the general importance of each value for an individual, not its importance relative to all other values.

reliability in the current sample across 1 year was $r = .68$, $p<.001$. Health status was assessed by the total number of illnesses reported on a questionnaire (based on Wyler et al. 1967) that listed a wide variety of common health conditions. Higher scores represent a greater number of illnesses. In prior research with older adults this measure of health predicted non-verbal cognitive functioning and correlated negatively with neuroticism adjustment (Gold et al. 1995). Test–retest reliability in the current sample across 1 year was $r = .69$, $p<.01$.

2.3 Procedure

Individuals interested in participating in the advertised retirement study contacted the researchers by telephone or email. Those who met inclusion criteria were given the choice of participating in either French or English, and then scheduled to come for testing at Concordia University in groups of up to six people. Upon completion of a battery of self-report questionnaires and cognitive tests that took~3 h, participants received a cheque for $50. After completing the first year's (T1) materials, participants were invited to return at ~1-year intervals for the next 2 years (T2 and T3).

3 Results

3.1 Preliminary Analyses

Several of the predictor variables (financial status; number of illnesses; transcendence values) and both outcome variables (positive affect and negative affect) failed to meet strict criteria for normality of distribution. For these variables, appropriate transformations were made to normalize the variables and models were re-tested with the transformed data. The results based on the transformed data mirrored those based on the raw data in both pattern of associations and variance accounted for. The results below therefore represent analyses conducted on raw data. Descriptive statistics and a correlation matrix for all study variables, using raw data, are reported in Table 1.

3.2 Structural Equation Modeling

Statistical analyses were performed using structural equation modeling (SEM) in M-Plus (Muthe´n and Muthe´n 2006). SEM analyses allowed us to examine the data in two different ways. The first approach involved creating three separate SEM models in order to examine significant paths between predictors and outcomes at each of three annual assessments. This approach demonstrates whether the same pattern of associations emerges at each assessment. The second and more sophisticated approach involved creating one integrated longitudinal model incorporating all three assessments. This integrated model indicates which predictors have an increasing impact on affective outcomes above and beyond prior associations, essentially covarying out T1 associations at T2 and, and covarying out both T1 and T2 associations at T3. Significant paths at T2 in the integrated longitudinal model, then, indicate increased effects beyond T1; significant paths at T3 indicate increased effects beyond T1 and T2. Non-significant paths at T2 and T3, on the other hand, indicate the absence of increased association (i.e., the stability of associations) rather than no association at all. Taken together, these two approaches (separate and integrated models) provide a portrait of the stability of associations as well as an indication of the variables that have increasing effects on positive and negative emotions as time goes on.

The dependent variables used were positive and negative affect and the predictors included gender, finances, illnesses, enhancement, transcendence, openness to change, conservation, the finance-by-enhancement interaction and the finance-by-openness to change interaction.

The first step of the SEM analyses involved the creation of three separate models examining the pattern of associations at T1, T2 and T3 for both affective outcomes. The results of these models are described next and are represented visually in Fig. 1. Below we report the standardized coefficients for each path in each model but in order to simplify the visual presentation, the coefficients do not appear in Fig. 1.

We tested two alternate models on T1 data to ensure that the reported models represented the best fit to the data. The first of these tested the possibility that positive and negative affect, rather than emotional consequences of values, are emotional tendencies that lead to values. The second alternative model used a mediational approach to test whether the effects of the gender, health and finance on positive and negative affect occurred through values. Each of these alternative models was rejected separately on the basis that they had significant chi-square values of model fit ($p<.01$), low fit indices (CFI<.90) and high residuals (RMSEA>.06). Comparisons of each alternative model to the original revealed that they were of significantly worse fit to the data (Delta-Chi-Square (4) = 25.99, $p<.05$ and Delta-Chi-Square (31) = 464.12, $p<.05$). The fit indices of the alternate models were unacceptable regardless of any post-hoc attempts to change paths to improve model fit. The original model with values and demographic variables predicting affective outcomes was therefore retained for all subsequent analyses.

3.2.1 Time 1

In terms of the demographic variables at T1, female gender (coded as men = 1, women = 2; ß = .13, $z(371) = 2.73$, $p<.05$), better finances (ß = .17, $z(371) = 3.81$, $p<.05$), and fewer illness (ß = -.09, $z(371$, 1-tailed) = 1.87, $p<.05$) were associated with higher positive affect. Consistent with the hypotheses for values, transcendence (ß = .14, $z(371) = 2.70$, $p<.05$), openness to change (ß = .35, $z(371) = 6.78$, $p<.05$), and conservation values (ß = .11, $z(371) = 2.24$, $p<.05$) were all associated with higher positive affect. Enhancement values showed no association with positive affect (ß = -.02, $z(371) = -.30$, p>.05). Also as hypothesized, the finance-by-enhancement interaction (ß = .10, $z(371) = 2.28$, $p<.05$) and the finance-by-openness to change interaction (ß = -.15, $z(371) = -3.33$, $p<.05$) uniquely contributed to the variance in positive affect. These interactions are illustrated in Figs. 2 and 3, respectively, with low and high categories of each variable representing -1 SD and + 1 SD.

Follow-up tests were conducted to analyze the significance of the slopes in each interaction. In the finance-by-enhancement interaction at T1, positive affect did not vary with financial status for those low in enhancement (ß = .14, $p>.05$). However, for those high in enhancement, positive affect did vary according to financial status, such that those with lower financial status reported lower levels of positive affect (ß = .22, $p<.05$). In other words, enhancement values moderated the association between financial status and positive affect.

In the finance-by-openness to change interaction at T1, positive affect did not vary with financial status for those high in openness to change (ß = .03, $p>.05$). However, for those low in openness to change, low financial status was associated with lower levels of positive affect (ß = .28, $p<.05$). Similar to the results

obtained for enhancement values and financial status, openness to change values moderated the association between financial status and positive affect.

In terms of negative affect at T1, female gender (ß = .10, $z(371) = 2.00$, $p<.05$) poorer finances (ß = -.13, $z(371) = 2.69$, $p<.05$), and a greater number of illnesses (ß = .25, $z(371) = 5.10$, p\.05) significantly predicted negative affect scores. Consistent with hypotheses for values, higher enhancement values (ß = .19, $z(371) = 3.52$, $p<.05$) and lower openness to change values (ß = -.19, $z(371) = 3.54$, $p<.05$) were also associated with increased negative affect.

The total set of predictor variables at T1 accounted for 29.50% of the variability in positive affect and 14.80% of the variability in negative affect. Fit indices suggested an excellent fit of the model to the data ($\chi^2_{(4)}= 1.74$, $p>.05$, CFI = 1.0, RMSEA = .00).

3.2.2 Time 2

The overall pattern of association between the demographic variables, values, interactions and well-being outcomes remained relatively stable from T1 to T2, although some associations that were present at T1 disappeared at T2 (Fig. 1). Female gender continued to be associated with higher positive affect (ß = .09, $z(371) = 1.96$, $p<.05$), but was no longer associated with negative affect (ß = .06, $z(371) = 1.26$, $p>.05$). Finances continued to predict negative affect (ß = -.10, $z(371$, 1-tailed) = -1.89, $p<.05$), but no longer predicted positive affect (ß = .06, $z(371) = 1.28$, $p>.05$). Number of illnesses continued to predict both positive affect (ß = -.16, $z(371) = -3.32$, $p<.05$) and negative affect (ß = .25, $z(371) = 5.15$, $p<.05$). Values continued to be associated in the hypothesized directions, with transcendence (ß = .16, $z(371) = 3.35$, $p<.05$), openness to change (ß = .29, $z(371) = 5.20$, $p<.05$), and conservation values (ß = .10, $z(371$, 1-tailed) = 1.82, $p<.05$) all predicting positive affect, and with enhancement (ß = .24, $z(371) = 4.61$, $p<.05$) and openness to change values (ß = -.15, $z(371) = -2.75$, $p<.05$) predicting negative affect. Neither of the interactions observed at T1, however, were significant predictors at T2. The total set of predictor variables at T2 accounted for 21.3% of the variability in positive affect and 13.8% of the variability in negative affect. Fit indices suggested an excellent fit of the model to the data ($\chi^2_{(4)} = 6.64$, p>.05, CFI = .98, RMSEA = .04).

3.2.3 Time 3

Again, the overall pattern of associations remained relatively stable from T2 to T3, although one significant association from T2 disappeared while others that had disappeared at T2 emerged again (Fig. 1). Similar to T2, female gender predicted positive affect (ß = .13, $z(371) = 3.02$, $p<.05$) but not negative affect (ß = .04, $z(371) = .77$, $p>.05$); and number of illnesses predicted both positive affect (ß = -.20, $z(371) = -4.62$, $p<.05$) and negative affect (ß = .25, $z(371) = 5.04$, $p<.05$). Values showed the same pattern of associations, with transcendence (ß = .17, $z(371) = 3.19$, $p<.05$), openness to change (ß = .40, $z(371) = 7.53$, $p<.05$), and conservation values (ß = .10, z(371) = 2.10, p<.05) all predicting positive affect, while enhancement (ß = .18, $z(371) = 3.25$, $p<.05$) and openness to change values (ß = -.14, $z(371) = -2.53$, $p<.05$) predicted negative affect. Finances, which were predictive of both positive and negative affect at T1 but only negative affect at T2, were associated at T3 with only positive affect (ß = .11, $z(371) = 2.52$,

p<.05). Finally, although the interactions between values and finances from T1 had not emerged at T2, the finance-by-enhancement interaction returned at T3 for positive affect (ß = .12, $z(371)$ = 2.47, p<.05. The total set of predictor variables at T3 accounted for 33.5% of the variability in positive affect and 10.3% of the variability in negative affect. Fit indices suggested an excellent fit of the model to the data ($\chi^2_{(4)}$ = 5.50, p>.05, CFI = .99, RMSEA = .03).

3.2.4 Integrated Longitudinal Model

Following the three separate SEM models, a single longitudinal model was created to examine the associations at each time point while controlling for prior levels of each variable as well as prior associations among predictors and outcome variables. This strategy allowed for an examination of whether predictor and outcome variables were associated above and beyond associations observed in the previous year(s). Below we report the standardized coefficients for the integrated longitudinal model but in order to simplify the visual presentation, the coefficients do not appear in Fig. 4. Every variable was predicted based on the data from the previous time point (e.g., T2 positive affect predicted by T1 positive affect). The effect of gender was modeled only at T1. Finally, covariances between the predictors were also added to the model to account for shared method variance, though only in cases of theoretically sound associations within the same time points (e.g.: T2 enhancement with T2 transcendence). The integrated longitudinal model fit the data reasonably well ($\chi^2_{(352)}$ = 826.65, p<.05, CFI = .90, RMSEA = .06). The T1 results were exactly the same as those reported for the T1 separate model as no prior levels are accounted for (see Fig. 1).

3.2.5 Integrated Model at T2

At T2, two values and one contextual variable were associated with affective outcomes above and beyond T1 levels and associations, indicating that their effects on well-being became stronger over time. In the integrated longitudinal model, T2 positive affect was significantly predicted by T2 transcendence values (ß = .15, $z(371)$ = 3.34, p<.05); T2 negative affect was predicted by T2 enhancement values (ß = .19, $z(371)$ = 3. 91, p<.05); and number of illnesses predicted both positive affect (ß = -.07, $z(371$, 1-tailed) = 1.72, p<.05) and negative affect (ß = .19, $z(371)$ = 3.41, p<.05). In other words, higher transcendence values and fewer illnesses continued to predict positive affect while higher enhancement values and more numerous illnesses continued to predict negative affect above and beyond the levels of variables and the pattern of associations at T1. Taking into account all prior T1 levels and associations as well as these increased effects, 49% of variance in positive affect and 24.8% of negative affect were accounted for at T2.

3.2.6 Integrated Model at T3

Finally, at T3 one value and one context variable contributed to affective outcomes above and beyond variable levels and associations at T1 and T2. First, positive affect at T3 was significantly predicted by higher openness to change values (ß = .26, $z(371)$ = 6.05, p<.05). Second, having more illnesses predicted

lower positive affect (ß = -.12, $z(371) = 3.28$, $p<.05$) and higher negative affect (ß = .13, $z(371) = 2.87$, $p<.05$). In other words, openness to change continued to predict positive affect while number of illnesses continued to predict both positive and negative affect even after controlling for all variable levels and associations at T2 and T1. All in all, 56.9% of the variability in T3 positive affect and 34.90% of the variability in T3 negative affect was accounted for. It is worth noting that positive affect and negative affect were significantly negatively correlated at T1 ($r = -.18$, $z = 3.51$, $p<.05$) and T2 ($r = -.20$, $z = 4.08$, $p<.05$) but not at T3 ($r = -.06$, $z = 1.05$, $p>.05$).

4 Discussion

This study contributes to the literature on subjective well-being and retirement by being the first to examine the links between values as measured by the Portrait Value Questionnaire (Schwartz et al. 2001) and affective well-being (positive and negative affect) among retirees. We also considered the interaction of values with financial and health status as well as the stability of the links between values and well-being across 3 years of retirement.

4.1 Direct Effects and Interactions

We hypothesized that values would show direct links with the affective well-being of retirees, even when important demographic predictors (gender, health, and financial status) were controlled for. Demographic variables played a significant role in affective outcomes, such that higher levels of both positive and negative affect were reported by women, and better financial and health status were significantly associated with higher levels of positive affect and lower levels of negative affect. These results, including the fact that women reported more of both positive and negative emotions compared to men, are consistent with previous findings (Diener et al. 1999). It is not clear whether this gender difference represents actual differences in the intensity of emotional life between men and women or differences in the style of self-report of emotional experience. In either case, these results support gender role stereotypes in which men tend to present themselves as experiencing a more restricted range of emotion than women (Diener et al. 1999).

Regarding the emotional impact of financial status, our results offer further support for the importance of subjective perception of financial status for affective well-being. Although objective income tends to be related to well-being only at the lowest levels of revenue (e.g., Diener and Oishi 2000; Diener and Seligman 2004), subjective indicators of financial matters, such as the perception of adequacy of financial resources, are more robust and relevant predictors of well-being (Diener and Seligman 2004; Singh-Manoux et al. 2003).

Regarding the emotional impact of illness, self-reported health has tended to be strongly correlated with subjective well-being (e.g., Diener et al. 1999; Piazza et al. 2007). Consistent with previous findings, our results indicate that having fewer illnesses is an important ingredient in affective well-being, contributing to both higher positive affect and lower negative affect among retirees.

Beyond these contextual variables, the results also indicated that certain value orientations appear to be beneficial for retirees' affective well-being while others may be detrimental. Higher openness to change values enhanced positive emotions and protected against negative emotions among retirees in our sample, while higher transcendence and conservation values predicted more positive emotions. This pattern differs from previous findings with younger and working adults (Sagiv and Schwartz 2000) for whom affective well-being was associated with lower conservation values, and for whom transcendence values were not linked with positive emotions. These differing links between values and affective well-being might be partially explained by Sagiv and Schwartz's use of ipsative value scoring indicating the relative importance of values compared to the use of raw value means indicating the absolute importance of values in the current study. The differential patterns in these two studies may also, however, support the idea that the emotional benefits of particular value orientations depend on position in the lifespan. An emphasis on conformity to social norms, upholding tradition and customs, and maintaining security of the individual person and of society (conservation values), while potentially detrimental for younger adults, appears beneficial for retired adults. Similarly, while focusing on ends larger than the individual and being concerned for the welfare of others and of the natural world (transcendence values) had no impact on emotions among younger adults (Sagiv and Schwartz 2000), this value orientation has emotional benefits for retired adults, consistent with generativity theory (e.g., McAdams et al. 1993). The findings also support the emotional benefits of prioritizing of present-oriented and emotionally-meaningful goals in the context of limited future time as proposed by socio-emotional selectivity theory (Carstensen et al. 1999).

The pattern of links between values and well-being is also consistent with self-determination theory (Deci and Ryan 2000), which posits that higher well-being should be associated with motivational content that supports basic psychological needs for competence, relatedness, and autonomy. The pursuit of these basic needs is generally reflected in the values that were associated with enhanced well-being (openness to change, transcendence, and conservation). The only value to have negative effects on well-being, enhancement, has an emphasis on status, power, and seeking the admiration of others and is largely consistent with the extrinsic aspirations proposed by self-determination theory to interfere with basic need satisfaction (Deci and Ryan 2000). Our findings, in conjunction with a growing body of research on intrinsic and extrinsic goals (see review by Kasser 2004), do seem to support the notion that prioritizing intrinsic value orientations (pursuing self-acceptance, affiliation with others, and contribution to the community) has emotional benefits, whereas prioritizing extrinsic values (pursuing contingent approval or external signs of worth) has emotional costs.

Finally, the pattern of links between values and affective outcomes can be seen as reflecting the importance of an outward focus (e.g., transcendence values) for older adults' experience of positive affect as well as the negative effects of inward focus (e.g., enhancement values) in terms of increased negative affect (Kunzmann 2008). An outward orientation (i.e., successfully engaging in the environment) has been shown to primarily predict positive affect among older adults, whereas an inward orientation (i.e., constant self-evaluation) primarily predicts negative affect among older adults (Kunzmann 2008).

Beyond direct links with well-being, we also hypothesized that values would serve as either protective or risk factors in the context of lower health or financial status. Of note, there were no health-by-value interactions for either positive or negative affect, suggesting that values do not influence emotional well-being in the context of physical illness. In addition, no finance-by-value interactions emerged for negative

affect, suggesting that in the context of financial difficulties, values do not protect individuals from negative emotions.

Values, on the other hand, did moderate the association between financial status and positive affect. The finance-by-enhancement interaction indicated that those higher in enhancement values who were in a poor financial situation experienced fewer positive emotions compared to those with better finances. High enhancement values, then, not only predict negative emotions directly among retirees, but also contribute to reduced positive emotions for retirees when financial resources are low. We interpret the negative effects of enhancement values on well-being not as an indication that these values are ethically wrong, but rather as representing the difficulty of expressing enhancement values in activities in the context of retirement. Given that being able to express important values in behavior is a key ingredient in subjective well-being (Oishi et al. 1999), prioritizing enhancement in a post-employment stage of life may put retirees at risk for a reduced quality of emotional life. That is not to say that it is impossible to value enhancement and be happy. If enhancement-oriented retirees can find activities that support their drive for status and recognition, for example by getting involved in leadership of organizations, they are likely to be happier. The issue, however, is one of limited availability of such opportunities outside the hierarchies and rewards of the workplace.

The other way that values interacted with finances was through openness to change. Those higher in openness to change values tended to experience the same frequency of positive emotions regardless of their financial status. In contrast, those lower in openness to change values and who were in a poor financial situation tended to experience reduced levels of positive emotions. High openness to change values, then, not only directly predicted more positive and fewer negative emotions among retirees, but also contributed to higher levels of positive emotion when financial resources were low. Again we do not interpret the positive effects of openness to change on well-being as an indication that these values are ethically superior. Rather, our results indicate the goodness of fit between retirement, with its lack of structural constraints and greater opportunities for self-determination, and the constellation of motivations represented by the openness to change orientation.

4.2 Patterns of Association Across Time

The strength of the current study stems partly from the longitudinal design with measurements every year over 3 years but also from the statistical approach to data analysis. The longitudinal SEM model allows for the examination of associations between the variables while controlling for all of the links at previous time points. The primary advantage of this method of data analysis is the ability to examine change in patterns of association over time, rather than simply change in individual variables. This method provides an alternative to more traditional approaches to the analysis of change by creating a portrait of the evolving pattern of associations among a set of variables.

The initial separate SEM analyses across the three waves of data (see Fig. 1) suggested that the pattern of associations among health, finances, values, and emotional well-being was generally consistent across 3 years, albeit with some temporal variations. Given that the same participants were included at each time point, these inconsistencies do not reflect attrition in participants. It appears that a process of adaptation to the circumstances of retirement over time occurs, especially in the domain of finances. The role of

finances in affective well-being changed slightly from year to year, showing associations with both positive and negative affect at T1, then only one or the other in subsequent years (see Fig. 1). This may reflect an evolving relationship with money (i.e., adaptation to generally reduced and fixed income) in a new stage of life. Similarly, the interactions of finances with values were inconsistent, perhaps also reflecting an evolving financial philosophy. Beyond these inconsistencies across 3 years, however, when all prior levels and associations among variables were taken into account in an integrated longitudinal model (see Fig. 4), the effects of finances on well-being did not change beyond T1 levels. This suggests that retirees in some way adjust to or cope with the effects of lower finances on well-being, as these effects do not increase over time. Finances are, therefore, a significant but constant predictor of well-being in retirement. This is in contrast to health and values, which showed increasing effects across 3 years. Having fewer illnesses was a significant and increasingly important ingredient in well-being across 3 years, as were lower enhancement and higher transcendence values (at T2) and higher openness to change values (at T3).

A speculative explanation for these increased effects is that values and health status manifest in patterns of activity and social engagement that may have accumulating benefits or deficits. For example, being concerned with helping others may result in reciprocated help that returns to the individual over time; placing high importance on status and wealth may lead to goal frustration, an effect that compounds over time; being creative and interested in seeking new experiences and pleasure may aid in establishing healthy activity patterns in retirement that promote positive experiences and prevent negative ones; and finally, having illnesses may result in activity restriction and social disengagement, the negative effects of which may multiply as years go by. In this way, the determinants of well-being described above may have evolving and cumulative effects as retiring adults adjust to the circumstances of retirement.

The total pattern of results raises some questions about the independence of positive and negative affect scales of the PANAS. Prior research has demonstrated that positive and negative affect are relatively independent affective dimensions and are generally related to different predictors (Schimmack 2008). Our results indicate, however, that several factors (gender, finances, illness, and openness to change values) predict both positive and negative affect. What does this say about the independence of these affective constructs? While it is true that they share some predictors in this study (particularly at T1) there's more evidence to suggest that the two constructs could and should be seen as separate. First, although illness has typically been associated with both affective dimensions, strength of association is usually much stronger for negative affect (Schimmack 2008), as is the case here. Like illness, openness to change values clearly show stronger links to one affective dimension than the other (in this case, to positive affect), also supporting the relative causal independence of the two affective dimensions. Only financial status and gender have approximately equal degree of association with both positive and negative affect.

In addition, the models have been constructed with the affective variables as separate and this approach resulted in a good fit with the data. Although not strictly orthogonal (i.e., $r = 0$), positive and negative affect were only moderately correlated at T1 and T2 (r's\-.20), and not significantly at T3, representing at most 4% of shared variance. Weak to moderate negative association between the affective dimensions is also consistent with prior research (Schimmack 2008). Finally, evidence that the constructs should be seen as independent is seen in the different amount of variability that was explained in each at T3, with 57% accounted for in positive affect and only 35% in negative affect by the total set of predictors in the integrated longitudinal model (see Fig. 4).

What are the implications of our findings for those in or near retirement? Clearly, adequate finances and good health are an important foundation for emotional well-being in retirement. These are factors, however, that are difficult to modify for those already in or approaching the retirement stage, as financial and health status in retirement depend to a large extent on patterns of living established over several decades prior to retirement. From a psychological perspective, the message for retirees is more interesting: personal values matter in terms of happiness, and may help to maintain well-being even in difficult situations involving less than satisfactory finances. Although value systems are thought to be relatively stable in the short term, major life transitions like retirement may be facilitated by an adjustment of values to match new opportunities and constraints. Eliciting and evaluating values as workers approach retirement and asking to what extent one's values will be consistent with the opportunities and resources available in retirement should be an important part of retirement planning from a psychological perspective.

4.3 Limitations and Future Directions

While this study is novel and timely in its relevance to our aging workforce, there are inevitable limitations in the methodology and sample that impact how the results of this study should be interpreted and to what extent they are generalizable. First, this data was collected between 2005 and 2007 just before the 2008 onset of a global economic crisis, and therefore does not represent the unstable financial climate that future retirees are facing. Second, despite the longitudinal design of this study, the results are nonetheless correlational in nature. It is plausible, therefore, that values do not play a causal role in well-being, as we have inferred, but are themselves the consequences of longstanding personality traits. To take this possibility into account, however, we tested alternative SEM models. In support of values as determinants of emotional outcomes, the model with values predicting affective outcomes was the best fit to the data. Third, there was no comparison sample of non-retirees, so it is impossible to know whether the observed pattern of associations is unique to the context of retirement or more broadly applicable to older adults in general. Future retirement research would benefit from such comparison samples. Finally, participants in this study represent a sample of those interested and healthy enough to participate. While this sample does represent a wide range of occupations and income levels as well as both genders and two linguistic cultures, results are not necessarily generalizable to retired populations with more severe financial and health limitations.

Our use of the PANAS as a measure of affective well-being also comes with certain limitations. Despite the fact that the PANAS is a widely used and psychometrically sound instrument for measuring positive and negative affect, it nonetheless has certain disadvantages such as (a) a focus on only high-activation or high-arousal emotions; and (b) and the self-report nature of the scale (Pavot 2008). Regarding the former, it is important to note that some low-arousal affective states (e.g., calm; worried), are not captured by the PANAS. Regarding the latter, self-reports of well-being come with the potential influence of contextual factors, biases, and response styles. Much research, however, has demonstrated that the influence of such confounding factors is limited and that self-report measures such as the PANAS are generally reliable and valid (Pavot 2008). Finally, there is some debate as to the best way to conceptualize and measure affect as a component of subjective well-being. For example, there is evidence to suggest that it is the frequency rather than intensity of emotional experiences that determines happiness (Diener, Sandvik, and Pavot

1991). The PANAS, with its instructions to rate the extent to which certain emotions were experienced, could be interpreted as capturing either or both frequency and intensity. Due to this ambiguity we are unable to contribute to this debate. In addition, other researchers have found that it is more important to consider the ratio of positive affect to negative affect over time than absolute levels of either one (Larsen and Prizmic 2008). Although this is not the approach that we have taken, this may be an important consideration and a useful alternative approach to analyzing PANAS data.

Future research into well-being in retirement would benefit from examining new samples of retirees that are facing the evolving economic realities of a global financial crisis. Retirement, especially in the future, is likely to be qualitatively different than it has been in the past due to multiple social and economic factors, including the recent drastic downturn in the global economy coupled with the increasing proportion of the population that is retired to that which is working.

Regarding the study of values in retirement, the mechanism through which values enhance or diminish affective well-being remains unknown. We found support for the self-determination theory (Deci and Ryan 2000) in that specific intrinsically-oriented value content promotes well-being, whereas extrinsically-oriented values diminish well-being. We were not able to assess, however, whether value-activity congruence (as in Oishi et al. 1999) was more important for happiness than value content. Further research will be necessary to delineate the specific pathways from values to emotions.

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Table 1 Correlations and descriptive statistics for all variables

	01.	02.	03.	04.	05.	06.	07.	08.	09.
Time 1									
01. Gender	–								
02. Positive affect	.15*	–							
03. Negative affect	.16*	−.20*	–						
04. Financial situation	−.21*	.18*	−.19*	–					
05. Number of illnesses	.22*	−.08	.29*	−.15*	–				
06. Enhancement	.00	.19*	.10*	.15*	.03	–			
07. Transcendence	.17*	.29*	.05	−.12*	.07	.04	–		
08. Openness to change	.14*	.43*	−.09	.13*	.01	.42*	.28*	–	
09. Conservation	.01	.15*	.08	−.02	.01	.20*	.40*	−.03	–
Means	1.53	37.65	15.33	4.81	4.27	3.04	4.78	4.43	3.94
SD	.50	6.75	5.75	1.27	2.90	.94	.65	.72	.73
Time 2									
01. Gender	–								
02. Positive affect	.13*	–							
03. Negative affect	.10	−.22*	–						
04. Financial situation	−.18*	.09	−.14*	–					
05. Number of illnesses	.17*	−.13*	.28*	−.21*	–				
06. Enhancement	−.02	.14*	.18*	.14*	.05	–			
07. Transcendence	.19*	.31*	−.02	−.11*	.08	−.01	–		
08. Openness to change	.12*	.35*	−.04	.11*	.07	.40*	.31*	–	
09. Conservation	.03	.15*	.12*	.02	−.05	.19*	.35*	−.03	–

Table 1 continued

|	01.	02.	03.	04.	05.	06.	07.	08.	09.
Means	1.53	37.63	15.83	4.78	3.79	3.06	4.76	4.39	3.94
SD	.50	6.35	5.65	1.32	3.44	.94	.65	.70	.73
Time 3									
01. Gender	–								
02. Positive affect	.15*	–							
03. Negative affect	.06	−.15*	–						
04. Financial situation	−.19*	.17*	−.12*	–					
05. Number of illnesses	.13*	−.19*	.27*	−.22*	–				
06. Enhancement	−.04	.19*	.11*	.12*	.02	–			
07. Transcendence	.17*	.34*	−.08	−.08	.09	.06	–		
08. Openness to change	.08	.45*	−.05	.11*	.04	.48*	.34*	–	
09. Conservation	.00	.15*	.05	.01	−.01	.22*	.36*	−.01	–
Means	1.53	37.45	16.23	4.90	4.39	2.99	4.69	4.27	3.87
SD	.50	6.30	5.69	1.24	4.06	.91	.67	.75	.74

* p ＼ .05
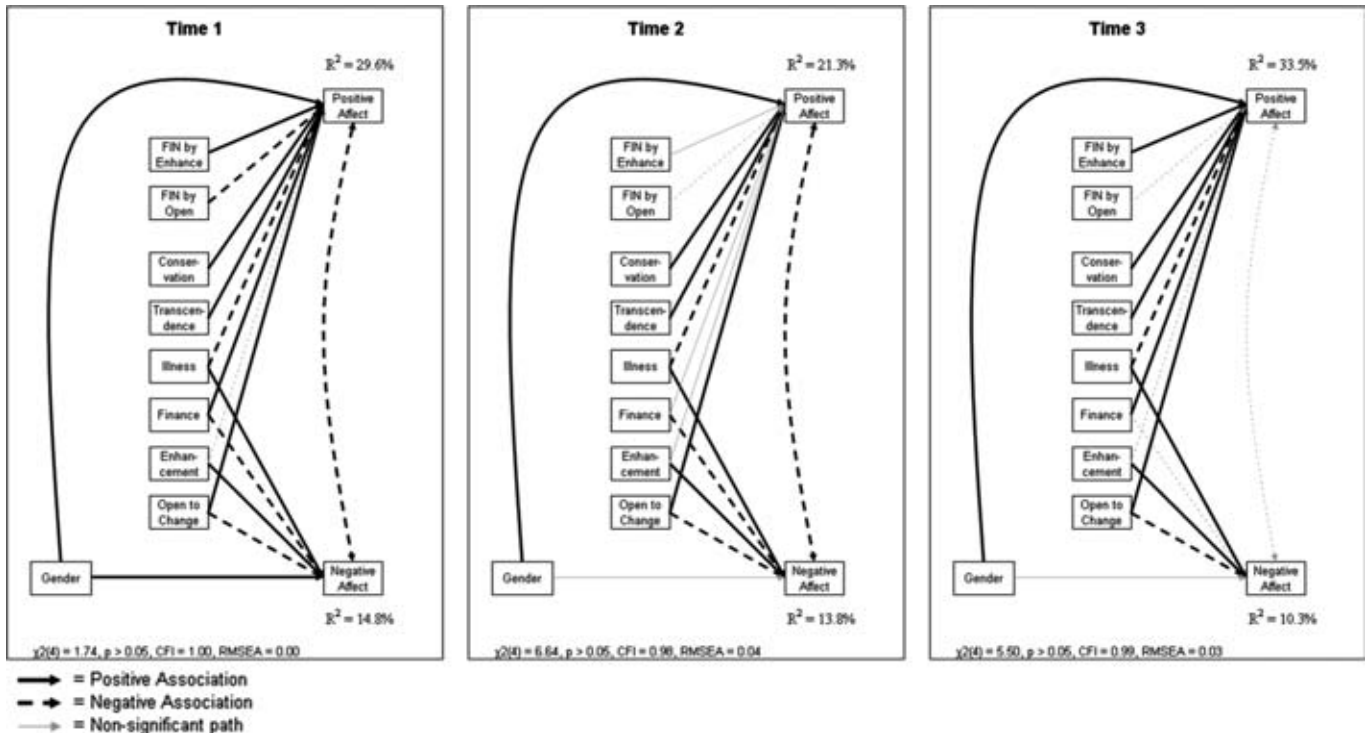
Fig. 1 Details of separate SEM models for predictors of positive and negative affect at T1, T2, and T3

Fig. 2 Interaction of financial status with enhancement values for positive affect at T1. Slope for high self-enhancement: $\beta = .32$, $p < .01$; slope for low self-enhancement: $\beta = .03$, $p = .60$
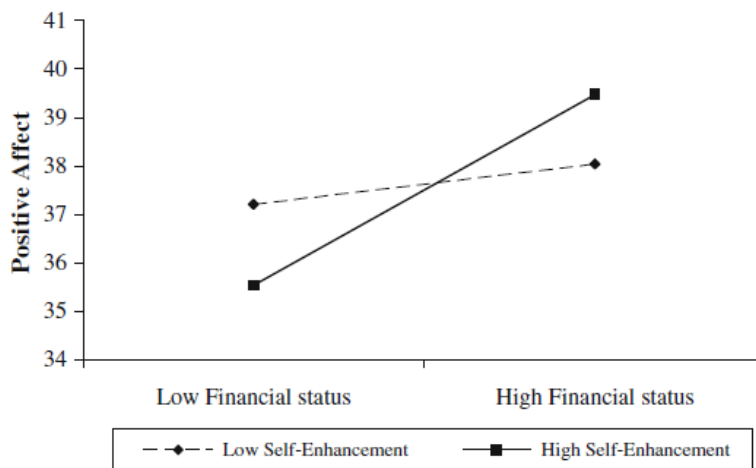
Fig. 3 Interaction of financial status with openness to change values for positive affect at T1. Slope for low openness to change: $\beta = .29$, $p < .01$; slope for high openness to change: $\beta = .06$, $p = .36$
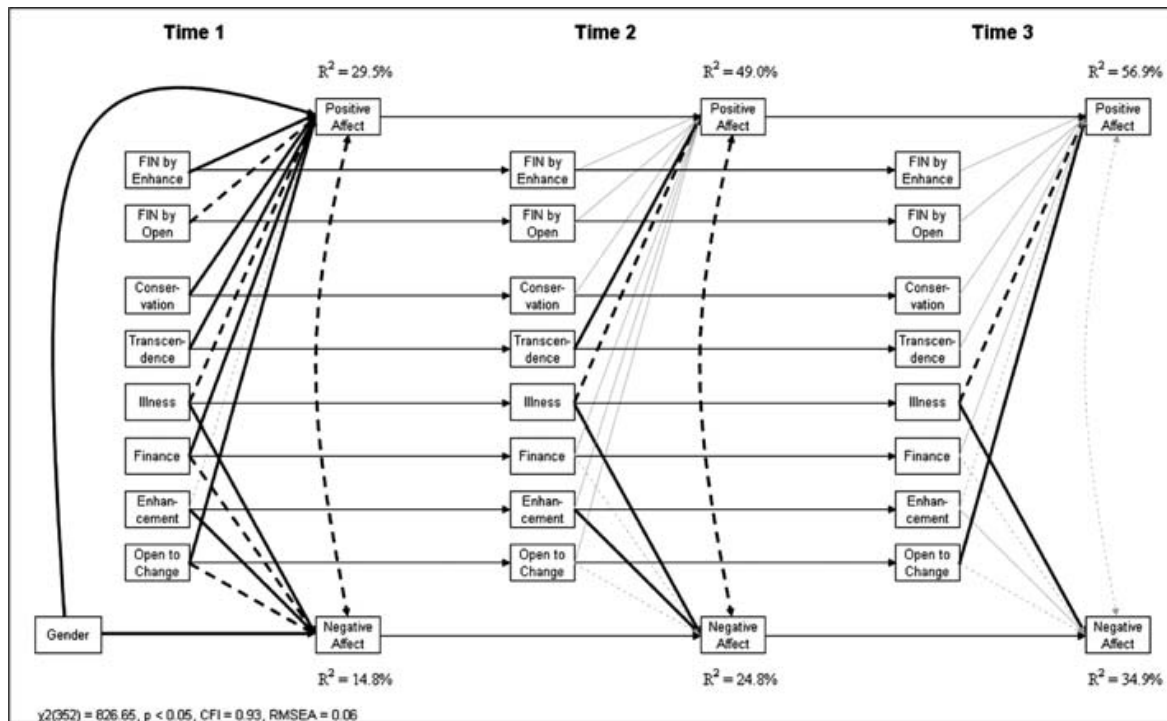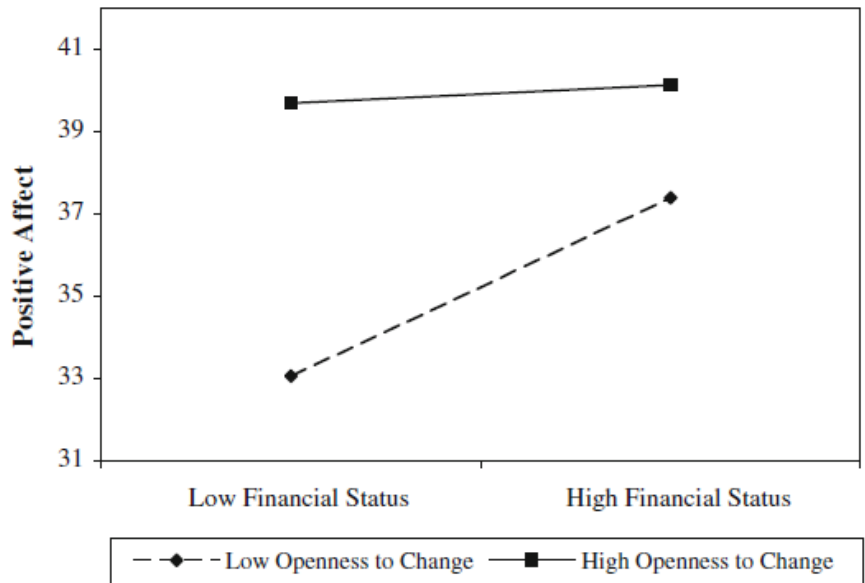
Fig. 4 Integrated SEM model details for predictors of positive and negative affect at T1, T2, and T3. Significant associations at T2 and T3 indicate increased effects above and beyond prior associations. Non- significant associations at T2 and T3 indicate stability in effects over time