

“Am I going to be happy and financially stable?”: How American women feel when they think about financial security

Talya Miron-Shatz*
Princeton University

Abstract

Before the recent recession evoked general dismay and uncertainty, this study examined the relative contribution of income and the concern over financial security to life satisfaction. The degree to which such concerns permeate people's daily lives could be part of the broader concept of wealth, often measured through income and debt, and could help evaluate fiscal instruments promoting financial security. Study 1 ($N = 267$) used econometric methods to demonstrate that the consideration of financial security was as important to participants' life satisfaction as their monetary assets. Further, outlook on financial security adds to the prediction of life satisfaction above the contribution of income. Content analysis revealed that nearly half the participants ($N = 651$, Study 2) mentioned financial concerns — retirement, college tuition, making ends meet, etc. — when asked to think about “the future” in an open-ended manner. These participants reported lower life satisfaction compared with women who did not raise such concerns. The link between concerns over financial security and life satisfaction, which cannot be fully accounted for by income alone, could guide policy decisions on whether to directly allocate resources toward increasing income or to focus on creating a social and financial safety net.

Keywords: financial security, income, life satisfaction, well-being.

1 Introduction

This study aimed to assess the degree to which women's concerns over financial security permeate their daily lives. The notion of financial security, I claim, is a valid and meaningful factor in the construct of wealth, yet is glaringly missing from economic discussions, as well as from examinations of the association between wealth and life satisfaction. Assessing the depths of financial security concerns could serve to evaluate fiscal tools promoting such security. In addition, expanding the concept of wealth should inspire well-being researchers and policy makers to inquire participants about financial security alongside questions about income.

Researchers have often failed to prove the widespread belief that income accounts for a substantial portion of life satisfaction (Diener & Lucas, 1999; Helliwell, 2003; Myers, 2000). Easterlin (1974, 2001, 2005) referred to the puzzling dissociation between money and satisfaction as the “illusion of growth and happiness,” (2005, p.

429) and this disparity has been dubbed “The Easterlin Paradox.” One of the proposed explanations was the satisfaction treadmill, (Kahneman, 1999, 2000) according to which an improved financial state raises aspirations so that the person now wishes for greater financial gains or other achievements, thus preventing satisfaction from increasing. The satisfaction treadmill implies that in order to fully understand the association between financial status and life satisfaction, we need to go beyond measures of income and material possessions to examine people's evaluations.

Recent research (Deaton, 2008, Stevenson & Wolfers, 2008) has all but resolved the Easterlin paradox by using log income, rather than raw income, to predict life satisfaction. The logarithmic transformation allows reflection of the non-linear utility of income. As income increases, finding ways to increase well-being through consumption becomes more difficult, yet still possible. The transformation results in strong association between economic and well-being measures. Furthermore, Deaton (2008) has used it to show that no satiation point exists beyond which increments in log income no longer contribute to an increase in life satisfaction. However, some questions remain unanswered. One of them, which the satisfaction treadmill touches upon, asks what encompasses people's mental representation of wealth. Another question raised by Stevenson and Wolfers (2009) asks why measures of

*The author thanks Steve Hoch, Daniel Kahneman, Mark Schlesinger, Hans Joachim Voth, two anonymous reviewers and Jon Baron for comments on earlier versions of this paper, and Mary Himmelstein and Janie Qi for excellent assistance. The author acknowledges support for this study from the Center for Health and Wellbeing, Princeton University. Address: 327 Wallace Hall, Center for Health and Wellbeing, Princeton University, Princeton, NJ, 08544. Email: tmiron@princeton.edu.

subjective well-being show that women's happiness has declined both absolutely and relative to men despite indications of major improvements for women in economic wealth and work force participation over recent decades. The researchers term this "the paradox of declining female happiness."

1.1 Domains of life satisfaction

Although most research on life satisfaction has tended to utilize measures of global satisfaction (e.g., Andrews & Withey, 1976; Diener, Emmons, Larsen & Griffin, 1985), it has often been argued that satisfaction is better measured with specific life domains (Campbell, Converse, & Rodgers, 1976; Cummins, 1996; Hsieh, 2003, 2004, 2008). In Cummins' (1996) taxonomy, the domain of material well-being, which incorporates the domains of "finances," "economic situation," "material possessions," and "standard of living," among others, accounted for the second largest variance in life satisfaction ratings, after the intimacy domain. Similarly, this study examined the degree to which one's evaluation of financial security helps expand the concept of wealth and perhaps increase the fraction of life satisfaction previously explained merely by income.

1.2 Study overview

In past research, women have appeared to experience more negative emotion than men regarding financial matters; women worry more about financial services, investments, and financial risk (Ricciardi, 2008). Stevenson and Wolfers (2009) offer several explanations for women's declining life satisfaction, among which is Hochschild's argument (1999, with Munchung) that women maintain the emotional responsibility for home and family. Another explanation points to increasing inequality, which raises concerns about increasing income volatility, and a more general concern about households bearing more health and retirement risk (Hacker, 2006). These findings show that women have ample reasons for worry and also point to their being inclined to agonize over various matters. Yet psychological writing seldom considers feelings of financial security. For example, Diener and Biswas-Diener (2008) discuss the benefits of having money, among which the researchers list social status, pleasure in shopping, and personal control. Personal control, such as being able to pay for repairs when one's car is involved in a hit and run accident, can translate as a practical demonstration of financial security, but the anxiety over security may be sorely present even where no predicament arises. Therefore, the present study examined the role that thoughts on financial issues play in women's lives. This inquiry was premised on

the assumption that people do not think to please themselves. Indeed, women often dwell on thoughts about life domains that are predominantly unpleasant (Nolen-Hoeksema, Larson, & Grayson, 1999).

The goal of this study is to expand upon the existing literature on women's concerns regarding financial security and their association with life satisfaction in two ways:

1. Demonstrating the importance of financial security by showing that women's feelings on financial security contribute to their life satisfaction even when measures of assets and income have already been considered.
2. Documenting the extent to which women contemplate financial issues. In Study 2, women were asked to think about "the future" without being prompted to focus on finances or other specific content. Such a procedure allows for concerns about financial issues to emerge naturally, as well as for participants to express their emotions about the topics that constitute "the future" for them. This inquiry tests the legitimacy and the merits of the budding focus on psychological measures in the financial domain as determinants of well-being.

2 Study 1

Study 1 involved a close-ended examination of a subjective measure of the financial domain: women's feelings about their own financial security. The main hypothesis was that the frequency with which women think about financial security and their experience when having such thoughts would add significantly to the prediction of life satisfaction that was made using the log of women's household income.

2.1 Method

2.1.1 Participants

A survey company recruited 267 women from a Midwestern city in the United States with a demographic composition closely resembling that of the country in general (M age = 43.70 years, SD = 10.51). All participants spoke English at home and worked either part or full time. Most of the participants (71%) were married or cohabiting. The median household income of the sample was between \$60,001 and \$70,000, and the modal household income (of 19.5% of the participants) was over \$100,001.

2.1.2 Materials and Procedure

The participants arrived at a conference center, where each of them followed the Event Reconstruction Method

protocol developed by Kahneman, Schkade, Schwartz, and Miron-Shatz (2006) and completed the questionnaires individually. They first listed their life satisfaction on the Satisfaction with Life Scale (Diener et al., 1985). Then they were prompted to think of the most recent episodes in which they engaged in 10 specific activities, such as exercising, shopping, or resting. Three sets of 10 activities were selected from a set of 20, leaving some overlap between versions. Participants were randomly assigned to complete one of the sets. The 20 activities were the following: working, exercising, shopping, having an extended conversation, doing housework, taking care of your children, reading, lovemaking, preparing food, having lunch, grooming, commuting, playing, praying, walking, listening to music, watching television, relaxing, having dinner. The participants noted the location, starting and ending times, partners, and actions for each episode. They rated the extent to which they experienced various emotions, from 0 (*not at all*) to 6 (*very much*). The emotions were the following: happy, friendly, calm, interested, competent, angry, tense, depressed, impatient for it to end, tired. Participants also completed an abbreviated version of the Big Five personality inventory (Donnellan, Oswald, Baird, & Lucas, 2006).

In the final portion of the study, participants reported how they felt while engaged in “personal thoughts” from specific thought domains, and how often they had these thoughts. They rated their emotions concerning these thoughts using the same scale they used for rating episodes. For example, a participant might be asked, “When you think about love and relationships in your life, what do you feel?” There were 18 thought domains divided into three versions, and each participant was randomly assigned a version. Version 1: love and relationships; respect you get from others; your house and home; getting older; current events, news politics; and spiritual aspects of your life; Version 2: your weight; your children (if any); your hobbies; your future; your work; medical insurance; Version 3: your family; financial security; your looks; your health; your faith and religion; your marriage (if married). The data reported here are from the 267 participants in Version 3.

2.1.3 Measures

Difmax. To capture the emotional valence of a thought, we used a measure termed difmax (for difference of maximums), which is calculated as the rating of “happy” minus the maximal ratings of “angry,” “tense,” and “depressed” as rated for a specific thought. Difmax was designed to capture the principle that “bad is stronger than good,” (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001), so that negative emotions will outweigh positive emotions of similar intensity. For instance, Miron-Shatz

(2009) found that experiences which participants defined as “peaks” had far less impact on their overall evaluation of a day than “lows” (see also Miron-Shatz, Stone & Kahneman, 2009, for findings regarding how experienced negative affect, but not positive affect, is consistently emphasized in memory). Finally, the intercorrelation of negative emotions was $r = .55$, whereas that of positive emotions was $r = .67$. This suggested that in order to pick up on any negative emotion, we needed to include more than one of them in the equation. Difmax correlated .95 with an affect balance measure, composed by subtracting the average of the three negative emotions from the average of “happy,” “friendly,” and “calm” (Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004a).

Frequency. Each participant reported the frequency with which she had thoughts about financial security on the following 4-point scale: 1 (*never*), 2 (*rarely*), 3 (*at least once on most days*), or 4 (*many times each day*).

Life satisfaction. Participants responded to the Satisfaction with Life Scale (Diener et al., 1985). They stated the degree to which they agreed with each statement, such as “If I could live my life over, I would change almost nothing,” on a scale of 1 (*strongly disagree*) to 7 (*strongly agree*).

Personality. Personality was measured using an abbreviated version of the Big Five personality inventory (Mini IPIP, Donnellan, Oswald, Baird, & Lucas, 2006). The averaged ratings for the items that measured each personality trait were averaged to form ratings for neuroticism, extraversion, agreeableness, conscientiousness, and intellectuality.

Demographics. Participants were also asked a number of demographic questions. These included age (in years), household income, and home ownership status. Annual household income was measured on an 11-point scale with each point corresponding to a specific income range (0 = \$10,000 or less; 1 = \$10,001 — \$20,000; 2 = \$20,001 — \$30,000; ... 9 = \$90,001 — \$100,000; 10 = more than \$100,000). Finally, home ownership status was rated on a simple 3-point scale: 1 = renting or otherwise living in a home that is owned by someone else; 2 = owns a home with a mortgage; and 3 = owns a home free-and-clear.

2.2 Results

As Table 1 indicates, the women often had thoughts of financial security. Only a small proportion of the participants (18.7%) rarely thought about financial security, and very few participants reported never thinking about it (0.4%).

The frequency of thinking about financial security and financial security difmax were negatively correlated ($r = -.504, p = .000$), suggesting that frequent thoughts about

Table 1: Study 1: The difmax of thoughts related to financial security by their frequency

	Rarely	At least once on most days	Many times each day
Proportion in the sample	18.7%	46.1%	35.2%
Difmax of thoughts related to financial security (SD)	1.88 (2.75)	-.54 (2.48)	-2.26 (2.32)
B as predictor of life satisfaction	.163, $p < .01$.158, $p < .01$.220, $p < .001$

financial security were associated with unpleasant emotions, though the direction of causality cannot be determined by the data. Table 2 lists the correlations among all the major variables.

As Table 2 indicates, log household income is negatively correlated with the frequency of thoughts about financial security ($r = -.13, p < .05$) and positively correlated with financial security difmax ($r = .36, p < .001$).

To test the hypothesis that thoughts on financial security add to the prediction of life satisfaction as made by income, a hierarchical regression was conducted, first entering age and the Big Five personality factors as predictors. This model yielded an adjusted R^2 of .166. In the second step, the log of household income, home ownership status, and the frequency and difmax of thoughts about financial security were added to the model. The addition of these four factors explained significantly more variance in life satisfaction (Adjusted $R^2 = .33, F(10, 253) = 14.10, p < .001$). Moreover, three of the factors had significant effects (in descending order): log income ($B = 2.62, SE = .70, \beta = .228$), financial security thought difmax ($B = .661, SE = .157, \beta = .270$) and thought frequency ($B = -1.283, SE = .576, \beta = -.133$). Home ownership did not have a significant effect in this model ($B = -.106, SE = .492, \beta = .013, ns$).

Partial correlation coefficients were as follows where “satisfaction” indicates the Satisfaction with Life Scale, “income” indicates log household income, “frequency” indicates frequency of thoughts about financial security, and “difmax” indicates the difmax of thoughts on financial security:

satisfaction and income, controlling difmax: .218
 satisfaction and income, controlling frequency: .296
 satisfaction and difmax, controlling income: .381
 satisfaction and frequency, controlling income: -.304

Importantly, the last two correlations are not much lower than the corresponding raw correlations in Table 2 (.46 and -.35, respectively). Thus, women’s feelings about financial security seem to contribute to their life satisfaction as much as income does, and, roughly, in a way that is somewhat independent of income.

To further test Hypothesis 1, life satisfaction was predicted using the mean values and B values (from the general regression equation) of age, home ownership, the Big Five personality factors, and — when the group-specific values were not entered — annual pre-tax household income and financial security difmax. The predicted score on the Satisfaction with Life Scale for people in the 25th income percentile (between \$30,001 and \$40,000) was 22.32, and for people in the 75th income percentile (between \$80,001 and \$90,000) it was 24.77. The gap between these values (2.45) translates to an increase of 7% in life satisfaction. The predicted life satisfaction score for people in the 25th percentile of financial security difmax (-3) was 21.96, and for people in the 75th percentile (1) it was 25.10. The gap between these values (3.14) translates to an increase of 8.9% in life satisfaction.

These results support the main hypothesis and indicate that the affect and frequency of thoughts about financial security are not only capable of predicting life satisfaction almost to the same degree as household income, but also add to the prediction of life satisfaction as made through household income. Thus, the predictive ability of thoughts on financial security is unlikely to be a mere artifact of the methodological similarity in the way difmax and the Satisfaction with Life Scale are measured.

2.3 Discussion

The results of Study 1 illustrate the importance of the thoughts on financial security to women’s well-being. The results further suggest that it is the emotionality of these thoughts, rather than their mere presence, as indicated by frequency, that drives the association between these thoughts and life satisfaction. Thus, in order to fully explain life satisfaction using the construct of “wealth,” this construct needs to be expanded beyond the aspects of financial wealth that enable consumption to include the notion of financial security. Extra care has been taken in demonstrating that the importance of financial security to life satisfaction prediction does not result merely from the methodological similarity between the two variables. This was done by including personality variables in the regression model, which are assumed to be the underly-

Table 2: Study 1: Correlations between frequency and difmax of thoughts about financial security and major variables

	1	2	3	4	5	6	7	8	9
1. Thought Frequency									
2. Thought Difmax	-.50								
3. Life Satisfaction	-.35	.46							
4. Log Income	-.13*	.35	.36						
5. Extraversion	-.04 ^a	.08 ^a	.17	.07*					
6. Agreeableness	.00 ^a	-.09 ^a	.11**	.05 ^a	.26				
7. Conscientiousness	-.08 ^a	.17**	.14	.09**	.02 ^a	.12			
8. Neuroticism	.37	-.42	-.42	-.20	-.11**	-.01 ^a	-.17		
9. Intellect	-.01 ^a	-.04 ^a	.08*	.04 ^a	.28	.27 ^a	.03 ^a	-.09*	
10. Home ownership	-.08 ^a	.14*	.17	-.52	-.05 ^a	.00 ^a	.05 ^a	-.08*	.00 ^a
	1	2	3	4	5	6	7	8	9

Note. All $ps < .001$ unless indicated otherwise. * $p < .05$. ** $p < .01$.

ing mechanisms for rating tendencies. However cautious the analysis has been, it could not completely exclude the possibility that rating tendencies existed. On another vein, making the claim that women's assessment of financial security expands the concept of wealth seems deficient without knowing what financial concerns women are thinking of. What topics do they find distressing, and do they brood over them without being prompted to do so? In Study 2, a more qualitative approach was applied to answer these very questions.

3 Study 2

Study 2 was designed to establish the relative prevalence of thoughts about financial matters by having participants evaluate thoughts about "the future" and then asking them what these thoughts involved. The proportion of women who mentioned financial concerns in response to this question showed the relative importance of finances to the women in our study. Additionally, for the women who reported thinking about finances, I sought to replicate the finding from Study 1 that women's feelings on finances have a large effect on their reported life satisfaction. Key to Study 2 was the research question of what proportion of women would be preoccupied with finances with regards to their future. Hypothesis 1 was that women who are financially preoccupied will report lower life satisfaction compared with women who do not mention financial concerns in their future. Hypothesis 2 was that whether women are financially concerned would be predicted by financial measures. Finally, content analysis would reveal what particular forms of financial concerns women have.

3.1 Method

3.1.1 Participants

A survey company recruited 615 women from a Southwestern city in the United States. The demographic composition of the sample resembles the overall demographic composition of women in the United States (M age = 42.00 years, $SD = 10.46$). Most of the women (56.4%) were married or cohabiting, and 92.4% had a paying job, either full or part time. The median household income was \$50,001–\$60,000 and the modal income was between \$40,001 and \$50,000 (this group comprised 18% of the sample). Of the participants, 14% were in the upper income bracket (above \$100,000).

3.1.2 Materials and procedure

The participants arrived at a conference center, where each of them followed the Day Reconstruction Method protocol (Kahneman et al., 2004a, 2004b). Participants first completed the Satisfaction with Life Scale (Diener et al., 1985). Then they reported what they did during the previous day, dividing the day into episodes and rating how they felt during each episode, using the same emotions and the same scale of 0 (*not at all*) to 6 (*very much*) as in Study 1. Participants then completed the Mini IPIP (Donnellan et al., 2006) and reported how they felt when they thought of various life domains, using the 0 to 6 scale. The domains were the following: your financial status, your health, your children (if any), and the future. Finally, the participants answered the open-ended question, "When you just answered about 'the future' — what were you thinking about?"

3.1.3 Measures

Difmax, *frequency* and *life satisfaction* were measured in the same manner as in Study 1. Personality was also measured with the same scale used in Study 1, yielding separate values for extraversion, neuroticism, conscientiousness, agreeableness, and intellectualism.

Domains of future thoughts. Responses to the open-ended question about the content of participants' thoughts on the future were classified according to Cummins' (1993, 1996) taxonomy of the 7 domains of life satisfaction: financial well-being, intimacy, productivity, health, emotional well-being, safety, and place in community. Two independent raters coded each response about the future. Reliability (Cronbach's Alpha for un-standardized ratings) ranged from $\alpha = .75$ to $\alpha = .94$, $M \alpha = .88$ ($SD = .07$). Since the responses were open-ended, women could elaborate on more than one domain. As such, the sum of the percentages reported below exceeds 100%.

A response was coded as referring to financial well-being (hereon: *financially concerned*) if it included any of the following: a direct reference to money, debts, expenses (such as college tuition), bills, material possessions, work as a necessity rather than as a means for self fulfillment, or concerns about supporting oneself through retirement. A woman who mentioned "work," "retirement," or other issues such as "kids in college" was coded as financially concerned only if she explicitly referred to the financial aspect of this domain. Thus, 60 women who mentioned "retirement" without making explicit reference to money were not classified as financially concerned, even though some of them might have meant to indicate they worried about supporting themselves through old age.

Wealth measures. In addition to annual household income and home ownership status, participants in Study 2 reported how much they (and their spouses, where relevant) owed in regular debt (i.e., loans, mortgage) and in credit card debt (these were two separate questions). Participants also indicated their employment status (full-time, part-time, unemployed, student, retired, etc.).

3.2 Results

The domain classifications of the open-ended responses are displayed in Table 3, along with example responses. A substantial proportion of the participants (42%, $t(619) = 21.21$, $p < .0001$, $CI = 38\%$ to 46%) were classified as raising financial concerns based on their responses to the open-ended question about their thoughts on the future. References to the financial domain were second only to the domain of intimacy (50%), replicating Cummins' (1996) findings (see also Campbell et al., 1976; Easterlin, 2006).

Some of the participants (16%) spoke of the future in terms that did not correspond with any of the 7 domains. This corresponds with Cummins' finding that 20% of the domains used in the studies that he reviewed did not fit into his taxonomy.

In support of Hypothesis 1, that women who are financially preoccupied will report lower life satisfaction compared with women who do not mention financial concerns in their future, financially concerned women had significantly lower difmax scores on thoughts about the future and lower life satisfaction ratings ($M = .53$, $SD = 2.83$ and $M = 22.06$, $SD = 7.05$) than did the non-financially concerned women ($M = 1.44$, $SD = 2.64$, and $M = 23.79$, $SD = 6.04$), $t(594) = -4.06$, and $t(601) = -3.27$, $p = .001$, respectively, $p < .001$ for both. Financially concerned women thought about the future more frequently ($M = 3.25$, $SD = .64$) than did non-financially concerned women ($M = 3.09$, $SD = .72$), $t(612) = 2.83$, $p < .01$.

To test for Hypothesis 2, that financial concern would be predicted by financial measures, a regression was conducted using both personality traits and financial indicators as predictors. If these predictors would explain a large proportion of the variance, one could claim that there is no need for a query of one's subjective interpretation of her financial status. The model yielded an adjusted $R^2 = .043$. The strongest predictor of being financially concerned was the total amount of money that a woman (and her spouse, where relevant) owed in loans, including mortgages (standardized regression coefficient $\beta = .107$, $p = .03$, and the confidence interval = between .003 and .043). The only other significant predictor was conscientiousness ($\beta = -.102$, $p < .02$, confidence interval = between -.028 and -.003). Intellectualism was a marginally significant predictor ($\beta = -.082$, $p < .06$, confidence interval = between $-.025$ and 0). Log household income, home ownership, employment status, amount owed in credit card debt, age, and the personality traits neuroticism, extraversion, and agreeableness were not significant predictors of financial concern. Indeed, the household incomes of financially concerned and non-concerned women were roughly the same, with both groups averaging an income of between \$50,001 and \$60,000, $t(603) = .29$, *ns*. These results provide partial support for hypothesis 2, as they indicate that some, but not all of the economic measures are associated with being financially concerned.

3.2.1 Content analysis of financial concerns in thoughts of the future

By and large, referring to money in one's image of the future was associated with concerns about maintaining the existing financial situation or achieving some form of financial security. A very small proportion of the women

Table 3: Study 2: Examples of the Domains of Life Satisfaction and Financial Sub-Domains

Domain of life satisfaction	Percent of responses	Examples
Intimacy	50%	“My aging parents, my children, the possibility of a partner.”
Material well-being	42%	“Will I always have to struggle with finances?”
Productive activity	26%	“My future career goals,” “Excelling in my new job,” “My business and keeping it going.”
Emotional well-being	15%	“Want to be healthy physically and mentally as well,” “Travel plans. . .”
Health	14%	“What life will be in the future with RA & diabetes.”
Safety	4%	“Society-prejudices, war — being attacked again. . .” “War, destitution.”
Community	1%	“Peace for mankind”
No specific domain	16%	“What my life will be like in ten years,” “What’s going to happen when I get old.”

Sub-domain of material well-being	Percent of material thoughts	Examples
Finances	45%	“Having enough income in my family not to have to worry about money everyday!”
Retirement	35%	“... where I will spend my retirement years and will I have enough health and money to live a decent life.”
Stability and income	13%	“What job I will be at. . . Am I going to be happy and financially stable?”
Buying or renovating home	11%	“... losing my house because of finances.” “Buying a house.”
Supporting children	10%	“Children’s college expenses,” “Leaving an inheritance for my children.”
Paying bills	6%	“Getting out of debt,” “... paying mortgage off.”
Health and health insurance	2%	“Financial stress, aging and the health problems that will most likely cause.”

Note. A given response could be classified as touching on multiple domains. Thus, the example sentence given for “Retirement” as a sub-domain of “Material Well-Being” was also coded for the domain of “Health.” Thus, the percentages both in the domains and in the financial sub-domains add up to over a 100%.

referred to their financial situation in an explicitly positive manner. One such participant expressed “thinking about the appreciation I have for my parents who left me an inheritance which gives me some financial stability.”

Finer analysis of the open-ended responses indicated that the most prevalent sub-topic was finances in general (45%; see Table 3), with responses such as “Having enough income in my family not to have to worry about money every day!” The second most common topic within the domain of material well-being concerned retirement (35%). This too was characterized by distress, such as “I think about where I will spend my retirement years and will I have enough health and money to live a

decent life.”

Some women portrayed a bleak financial future, often coupled with the lack of a support network, where retirement seemed like a fantasy: “I am nearly 50. My husband decimated my life savings in two short years. I doubt I will ever have a life partner and I am going to work till I die. I have no children. This is not the life I wanted.” A small proportion of the financially concerned women (13%) were so classified because they referred to work in terms of stability and income. One woman, for example, wondered “What job I will be at, if I am going to be working paycheck to paycheck. Am I going to be happy and financially stable?”

Additional worries of the financially concerned included buying or renovating a home (11%), supporting children and paying tuition (10%), paying bills (6%), and health or health insurance (2%). Only one person referred to the economic status of the country.

3.3 Discussion

The results of this study point to the centrality of thoughts about financial security and other financial issues in women's images of the future. Many women were concerned with these thoughts, which were associated with lower affective ratings than thoughts regarding other topics. Furthermore, most financial circumstances, such as household income, home ownership status, and credit card debt did not predict whether or not a woman in our sample would include financial matters in her image of the future. Finally, financial issues were mentioned by women more often than other domains that were previously found to be strongly important to life satisfaction, such as health and emotional well-being (Cummins, 1996). This demonstrates that women are often concerned with financial issues and that these preoccupations merit examination and inclusion in the greater concept of wealth, as they do not merely reflect monetary circumstances.

4 General discussion

Speaking of her future, one of the participants asked, "Will I be happy and financially stable?" The findings suggest that happiness and the sense of financial stability are not independent and that the latter might be driving the former, at least to some degree. This study demonstrated that financial issues are of great concern to women and that perceived financial security is closely associated with life satisfaction, almost to the degree of actual income. The findings resonate with research indicating that the feelings associated with thoughts of various life domains are better predictors of life satisfaction than a demographic index composed of circumstances such as income, marital status, and health (Miron-Shatz, Saphire-Bernstein, & Diener, 2009).

Despite growing discontent with the use of income and material success as indicators of subjective well-being (Dolan & White, 2007; Frank, 1999), current economic and policy thinking, for the most part, does not use emotional measures in evaluations of financial and social policy. The direct measurement of the emotions associated with the financial domain is made all the more important by the fact that these emotions are not well predicted by a person's income, assets, or financial obligations.

Nearly half of the participants in Study 2 spontaneously mentioned financial concerns when asked what their thoughts on the future entailed. These concerns often dampened potentially joyful events, as with the woman who said, "First child on the way so thinking about providing for the baby." Some women worried about having to work even when they reached retirement age, while others worried about making ends meet. Incorporating financial issues in one's image of the future was associated with lower satisfaction regarding thoughts about the future, and with lower life satisfaction, relative to those who did not think about money. Household debt (including loans and mortgages) predicted who would include money in their thoughts about the future, but factors such as income, home ownership and age did not. This suggests that, whereas the term "financial security" may only signify existential danger to a few people, the concern over financial security appears to be important to the person who experiences it, and that, perhaps contrary to conventional wisdom, it is not only the poor or those in debt who fret over financial matters. Researchers have been finding that adaptation to changes in life circumstances, such as marital status, is less than complete, so that happiness levels may not bounce back after such events. Researchers attribute this to personality differences, or to the fact that some events, such as unemployment, result in a new and lower set-point of happiness (Lucas, Clark, Georegellis, & Diener, 2003, 2004, respectively). It would be interesting to examine if the factor underlying reduced life satisfaction, particularly following unemployment, is a lingering want of a sense of financial security.

The studies presented here involved women only, which may not fully reflect the effect of thoughts about finances for the population as a whole. Nonetheless, previous studies have found that women tend to ruminate more than men, a finding that has been linked to gender differences in depressive symptoms (Nolen-Hoeksema et al., 1999). Likewise, women tend to worry about financial issues more than men (Ricciardi, 2008). Stevenson and Wolfers (2009) suggest that, on average, women in the United States and Europe report declining happiness relative to men over recent decades. The finding, they claim, "is difficult to reconcile with changes in objective circumstances" (p. 4). The present findings suggest that financial security, which broadens the concept of wealth beyond financial circumstances as they appear through bankbooks or consumption, may partially account for women's diminishing life satisfaction. Furthermore, monetary wealth was measured in a somewhat noisy manner, given that, say, a yearly income of \$60,000 creates a very different level of wealth for a single woman as opposed to the case of a single mother with four children. In contrast, thoughts about financial issues are more



Figure 1: “I’m Desperate.” Wearing selected random passer-bys and asked them to write their thoughts on a piece of paper (© Gillian Wearing, courtesy Maureen Paley/ Interim Art, London, and the Tate Museum).

adept at self correcting for such variables. In order to address the claim that thoughts of financial security predict life satisfaction due only to shared method variance, I measured the presence of such thoughts in an open-ended inquiry and not just their affective value, which is most influenced by rating tendencies.

Future research should expand the scope of this investigation by examining men’s thoughts to see whether they include concerns about financial matters in their image of the future, and whether their feelings on financial security also predict their life satisfaction to the same degree as their income. Figure 1 presents Gillian Wearing’s photograph from the series, “*Signs that Say What You Want Them to Say and Not Signs that Say What Someone Else Wants You to Say*”. The photograph helps illustrate men’s feelings on financial security and that such feelings cannot necessarily be deduced through mere observation.

Future research should also establish whether thinking about money in one’s future is characterized by rumination or worry. Worry typically involves a need for

understanding, while rumination involves an avoidance of the worrisome topic (Watkins, 2004). If preoccupation with financial security is a form of worry, it might be associated with being committed to a goal (Martin & Tesser, 1989). In this case, experiencing more unpleasant emotions while thinking of the future might be offset by taking action toward achieving increased financial security. Limitations notwithstanding, this study has answered Rozin’s call (2007) to begin mapping the holes in current psychological knowledge regarding pivotal aspects of everyday life. The study also adheres to Bazerman’s (2001) suggestion that consumer research focus on consumers’ real-world needs and concerns, enabling consumers to make better choices.

However, not all manifestations of financial insecurity can be resolved by individual choices. Amir et al. (2005) advocate policy changes that would utilize behavioral insights for overcoming individual shortcomings. The widespread preoccupation of women with financial security echoes Hacker’s (2006) argument that the dwindling support net and the increasing privatization of wealth add uncertainty to the lives of lower and middle-income women as pension benefits, medical insurance, and many other forms of social support depend on the good will of employers. This study highlights the emotional costs of financial insecurity across income levels.

Diener and Seligman (2004) presented a case for the creation of a national well-being index to guide policy decisions. Along the same lines, Dolan and White (2007) proposed that measures of subjective well-being can and should be incorporated into the assessment and planning of economic policies and interventions. Subjective well-being, the researchers claim, is not beneficial solely for providing an account of mental states. It can also be used to monitor the utility of accounts that are more focal to economic thinking: those of objective lists and life conditions (Sen, 1999) and of desire fulfillment (Harsanyi, 1982). Results from the present study suggest that women’s feelings on financial security and the frequency of these thoughts could effectively link the broader psychological concept of wealth with objective and subjective economic criteria and policy outcomes.

References

- Amir, O., Ariely, D., Cooke, A., Dunning, D., Epley, N., Gneezy, U., Koszegi, B., Lichtenstein, D., Mazar, N., Mullainathan, S., Prelec, D., Shafir, E., & Silva, J. (2005). Psychology, behavioral economics, and public policy. *Marketing Letters*, *16*, 443–454.
- Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of General Psychology*, *5*, 323–370.

- Campbell, A., Converse, P.E., & Rodgers, W.L. (1976). *The quality of American life: Perceptions, evaluations, and satisfactions*. New York: Russell Sage Foundation.
- Cummins, R.A. (1993). The Comprehensive Quality of Life Scale: Adult. 4th Edition (ComQol-A4). School of Psychology, Deakin University, Melbourne.
- Cummins, R.A. (1995). On the trail of the gold standard for subjective well-being. *Social Indicators Research*, 35, 179–200.
- Cummins, R. A. (1996). The domains of life satisfaction: An attempt to order chaos. *Social Indicators Research*, 38, 303–328.
- Cummins, R. A., McCabe, M. P., Romeo, Y., & Gullone, E. (1994). The comprehensive quality of life scale (ComQol): Instrument development and psychometric evaluation on college staff and students. *Educational and Psychological Measurement*, 54, 372–382.
- Deaton, A. (2008). Income, health and well-being around the world: Evidence from the Gallup World Poll. *Journal of Economic Perspectives*, 22, 53–72.
- Diener, E., & Biswas-Diener, R. (2008). *Happiness: Unlocking the mysteries of psychological wealth*. Malden, Massachusetts: Blackwell Publishing.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49, 71–75.
- Diener, E., & Lucas, R. E. (1999). Personality and subjective well-being. In N. Schwartz, D. Kahneman, & E. Diener (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 213–229). New York: Russell Sage Foundation.
- Diener, E., & Seligman, M. E. P. (2004). Beyond money: Towards an economy of well-being. *Psychological Science in the Public Interest*, 5, 1–31.
- Dolan, P., & White, M. P. (2007). How can measures of subjective well-being be used to inform public policy? *Perspectives on Psychological Science*, 2, 71–85.
- Donnellan, M. B., Oswald, F., Baird, B. M., & Lucas, R. E. (2006). The Mini-IPIP scales: Tiny yet effective measures of the Big Five factors of personality. *Psychological Assessment*, 18, 192–203.
- Easterlin, R. A. (1974). Does economic growth improve the human lot? Some empirical evidence. In P. A. David & M. W. Reder (Eds.), *Notions and households in economic growth* (pp. 89–125). New York: Academic Press.
- Easterlin, R. A. (2001). Income and happiness: Toward a unified theory. *Economic Journal*, 111, 465–484.
- Easterlin, R.A. (2005). Feeding the illusion of growth and happiness: A reply to Hagerty & Veenhoven. *Social Indicators Research*, 74, 429–443.
- Easterlin, R.A. (2006). Life cycle happiness and its sources: Intersections of psychology, economics, and demography. *Journal of Economic Psychology*, 27, 463–482.
- Frank, R. (1999). *Luxury fever: Money and happiness in an era of excess*. New York: Free Press.
- Hacker, J. S. (2006). *The great risk shift: The assault on American jobs, families, health care, and retirement, and how you can fight back*. New York: Oxford University Press.
- Hagerty, M.R., & Veenhoven, R. (2003). Wealth and happiness revisited – Growing national income does go with greater happiness. *Social Indicators Research*, 64, 1–27.
- Harsanyi, J. C. (1982). Morality and the theory of rational behaviour. In A. Sen & B. Williams (Eds.), *Utilitarianism and beyond* (pp. 39–63). Cambridge: Cambridge University Press.
- Helliwel, J. F. (2003). How's life? Combining individual and national variables to explain subjective well-being. *Economic Modelling*, 20, 331–360.
- Hochschild, A.R., & Muncung, A. (1989). *The second shift: Working parents and the revolution at home*. New York: Viking Penguin Inc.
- Hsieh, C. M. (2003). Counting importance: The case of life satisfaction and relative domain importance. *Social Indicators Research*, 61, 227–240.
- Hsieh, C. M. (2004). To weight or not to weight: The role of domain importance in quality of life measurement. *Social Indicators Research*, 68, 163–174.
- Hsieh, C. M. (2008). The relative importance of health. *Social Indicators Research*, 87, 127–137.
- Kahneman, D. (1999). Objective happiness. In: N. Schwarz, D. Kahneman & E. Diener (Eds.). *Well-being: The foundations of hedonic psychology*. pp. 3–25. New York: Russell Sage Foundation.
- Kahneman, D. (2000). Experienced utility and objective happiness: A moment based approach. In D. Kahneman & A. Tversky (Eds.), *Choices, values and frames* (pp. 673–692). Cambridge: Cambridge University Press.
- Kahneman, D., Krueger, A. B., Schkade, D., Schwarz, N., & Stone, A. A. (2004a). A survey method for characterizing daily life experiences: The Day Reconstruction Method. *Science*, 306(5702), 1776–1780.
- Kahneman, D., Krueger, A. B., Schkade, D., Schwarz, N., & Stone, A. A. (2004b). The Day Reconstruction Method (DRM): Instrument documentation. Retrieved April 3, 2005, from <http://www.sciencemag.org/cgi/content/full/306/5702/1776/DC1>.
- Kahneman, D., Schkade, D., Schwarz, N., & Miron-Shatz, T. (2006). *Event Reconstruction Method: A succinct substitute for the Day Reconstruction Method?* Working paper, Princeton University.
- Lucas, R. E. (2005). Time does not heal all wounds:

- A longitudinal study of reaction and adaptation to divorce. *Psychological Science*, 16, 945–950.
- Lucas, R.E., Clark, A.E., Georgellis, Y., & Diener, E. (2003). Reexamining adaptation and the set point model of happiness: Reactions to changes in marital status. *Journal of Personality and Social Psychology*, 84, 527–539.
- Lucas, R.E., Clark, A.E., Georgellis, Y., & Diener, E. (2004). Unemployment alters the set point for life satisfaction. *Psychological Science*, 15, 8–13.
- Martin, L.L., & Tesser, A. (1989). Toward a motivational and structural theory of ruminative thought. In J. Bargh & J. S. Uleman (Eds), *Unintended thought* (pp. 306–326). New York: Guilford Press.
- Miron-Shatz, T. (2009). How was your day? Boundary conditions for the peak-end rule. Manuscript accepted for publication, *Emotion*.
- Miron-Shatz, T., Saphire-Bernstein, S., & Diener, E. (2009). Charting the inner landscape: How we feel when we think about our lives. *Unpublished manuscript*.
- Miron-Shatz, T., Stone, A.A., & Kahneman, D. Memories of yesterday's emotions: Variance, valence and order effects on the memory-experience gap. *Manuscript submitted for publication*.
- Myers, D. (2000). The funds, friends, and faith of happy people. *American Psychologist*, 55, 56–67.
- Nolen-Hoeksema, S., Larson, J., & Grayson, C. (1999). Explaining the gender difference in depressive symptoms. *Journal of Personality and Social Psychology*, 77, 1061–1072.
- Oishi, S., Diener, E.F., Lucas, R.E., & Suh, E.M. (1999). Cross-cultural variations in predictors of life satisfaction: Perspectives from needs and values. *Personality and Social Psychology Bulletin*, 25, 980–990.
- Ricciardi, V. (2008). The Financial Psychology of Worry and Women. *Social Science Research Network (SSRN) Working Paper Series*. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1093351
- Rozin, P. (2007). Exploring the landscape of modern academic psychology: Finding and filling the holes. *American Psychologist*, 62, 754–766.
- Sen, A. (1999). *Development as freedom*. Oxford: Oxford University Press.
- Stevenson, B., & Wolfers, J. (2007). The paradox of declining female happiness. Nimeo, University of Pennsylvania.
- Stevenson, B., & Wolfers, J. (2008). Economic growth and subjective well-being: Reassessing the Easterlin paradox. *NBER Working paper 14282*. National Bureau of Economic Research Working Paper Series.
- Thaler, R. H., & Sunstein, C. R. (2008). *Nudge: Improving decisions about health, wealth, and happiness*. New Haven, CT: Yale University Press.
- Watkins, E. (2004). Appraisals and strategies associated with rumination and worry. *Personality and Individual Differences*, 37, 679–694.