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Cass Business School
CITY UNIVERSITY LONDON

**INVESTIGATING THE RELATIONSHIP BETWEEN
SUBJECTIVE WELL-BEING AND CONSUMPTION IN
THE UNITED KINGDOM**

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Thesis submitted in fulfillment of the requirements for
PhD in Management

City University, London

Faculty of Management
Cass Business School

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Jing Yang Zhong
October 14 2009

INVESTIGATING THE RELATIONSHIP BETWEEN SUBJECTIVE WELL-BEING AND CONSUMPTION IN THE UNITED KINGDOM

ABSTRACT

Subjective well-being (SWB) benefits individuals as well as society as a whole. The relevant research has covered many aspects of life. However, as one of the most important way of seeking happiness in modern consumer culture, people's actual consumption behavior of hedonic products has not been linked to well-being and well studied. Following the two principles crucial to understanding well-being, this thesis investigates this relationship from two perspectives—well-being is both the outcome and the cause of beneficial hedonic product consumption. But the thesis starts from solving a question left from early research on how subjective cognition interacts with objective circumstances to affect well-being. Specifically, this thesis addresses the following research issues:

- RI 1: How much satisfaction with objective circumstances within life domains mediates the relationship between corresponding objective circumstances and SWB?
- RI 2: How much does hedonic consumption affect SWB, and how much is the relationship mediated by people's satisfaction with their relevant life domains?
- RI 3: How does SWB affects hedonic consumption; and does it have differential impacts on hedonic service consumption versus hedonic durable consumption, and why?

This thesis takes advantage of a large national panel survey with more than 15,000 consumers to investigate these research issues. The findings for the first research issue show that the mediating effect of subjective satisfaction is complicated and domain specific. Satisfaction with the house completely mediates the effect of housing on well-being, while satisfaction with health and leisure life only partially mediate the effects of physical health and engaging in leisure activities on well-being respectively. Moreover, income, having a supportive partner, job type and job pay has no effect on well-being, and satisfaction with these circumstances affects well-being independently.

The findings for the second research issue were that leisure consumption promotes well-being completely through the mediating effect of satisfaction with the use of leisure time, social life, and health. That is, spending on hedonic products to achieve mere pleasure is not the major source of well-being; rather, hedonic consumption for building enduring personal resources in various life domains (e.g., physical health,

social connections), and being satisfied with these life domains in turn leads to well-being. In addition, frequency of engaging in low-cost leisure activities positively affects satisfaction with the use of leisure time, social life and health, which may indicate that consumption of low-cost hedonic products are primary sources of satisfaction associated with the relevant life domains as well as well-being.

The findings for the third research issue provide evidence that well-being plays a key role in predicting hedonic service consumption: High well-being consumers more frequently consume highly rewarding, low-cost hedonic services, and they spend more on these services to build their physical health, social connectedness, and intellectual skills. However, this relationship does not exist in the context of hedonic durable consumption. High well-being consumers more frequently buy low-cost hedonic durables for their intrinsic fun, but they do not tend to spend more on these less rewarding products, possibly because of their poor association with long-term happiness.

The main contribution of this research is the development and quantification of the bidirectional relationship between consumers' well-being and their actual consumption. This relationship is one of the first rigorously researched step towards understanding the important confluence of two crucial concerns of well-being and consumption in modern society. This thesis has both theoretical and practical implications in the area of well-being and consumer behavior. The relationship was built from theory and empirical research and provides a foundation for further research on other consumer products and in other culture.

CHAPTER 1

INTRODUCTION

1.1 RESEARCH JUSTIFICATION

The proposed research can be justified on the grounds of three concepts: (1) the importance of mediating mechanisms for enhancing well-being; (2) the relationship between well-being and consumption; and (3) the anticipated benefits for consumers, policymakers, and marketing practice. Each of these justifications is addressed in turn.

1.1.1 Mediating mechanisms of enhancement of well-being

Subjective well-being (SWB; or happiness, as some researchers refer to it; Lyubomirsky, King, & Diener, 2005; Diener & Seligman, 2004; Lyubomirsky, Sheldon, & Schkade, 2005) benefits individual members of and society as a whole. For example, happy people are characterized by optimism, energy, social engagement, originality, altruism, likability, productivity, and good health, all of which can help them improve their own conditions as well as other people's lives (see Lyubomirsky, King, & Diener, 2005). Enhancing well-being is an important goal for consumers, government, and policymakers in almost every country (Lyubomirsky, Sheldon, & Schkade, 2005; Oswald, 1997).

However, despite unprecedented economic growth, social developments, and increasing living standards in recent decades, the overall well-being of people has not increased concomitantly, as can be seen across Western economies (Blanchflower &

Oswald, 2004; Esterline, 1995). This phenomenon suggests that we need to gain a deeper understanding of well-being and mechanisms that may mediate it or its enhancement and, accordingly, adopt more effective measures for pursuing it.

Research recognizes the need for academic investigations of this point. Early research focused mainly on understanding the objective circumstantial or subjective cognitive factors that affect well-being, without considering how they might interact. However, Brief and colleagues (1993) investigated this interaction in the context of health and found that objective physical health affects well-being only indirectly, through the mediating effect of a person's subjective perception of his or her health. These authors do not investigate whether the indirect effect of objective circumstantial factors and the mediating effect of subjective cognitive factors exist in other life domains. The way in which internal cognitive and external circumstantial factors interact to affect well-being represents the focus of Chapter 2 in this thesis (Brief, Butcher, George, & Link, 1993; Diener, Suh, Lucas, & Smith, 1999).

Mediating mechanisms are critical for understanding the relationship between objective circumstances and subjective cognition, as well as for research into the effect of happiness-enhancing activities on well-being. Lyubomirsky and colleagues point out that it is not enough to know what practices improve happiness; rather, we need to understand the specific processes that account for such effects. They also emphasize that this question has not been sufficiently studied and that much more work is needed to test the critical mediators that underlie the effectiveness of happiness-enhancing activities (e.g., Lyubomirsky, 2001; Lyubomirsky & Dickerhoof, in press). The mediating mechanisms for enhancing well-being therefore represent a justifiable focus of this research.

1.1.2 Relationship between well-being and consumption

Some consumer researchers argue that consumption simply leads to more

consumption and greater overall dissatisfaction (McCracken, 1988). Other authors claim that evolving consumption patterns result in constant need generation, leaving people feeling impoverished and forever unsatisfied (Schor, 1999). Moreover, an abundance of research into materialism argues that when acquisition and possession become the central goals in life, attempts to pursue happiness through material possession have negative effects on well-being (e.g., Belk, 1984; Kau, Kwon, Tan, & Wirtz, 2000; Richins, 1995; Wachtel & Blatt, 1990).

However, macromarketing researchers argue that happiness may derive from the marketplace (Ahuvia & Friedman, 1998). Consumption and consumer products, especially hedonic durables and hedonic services, increasingly influence modern consumers' happiness (Burroughs & Rindfleisch, 2002). For example, durables with entertainment value appear positively associated with well-being (Scitovsky, 1976, 1986; Hirschman, 1982; Oropesa, 1995), and hedonic services such as sports, socializing, or hobbies contribute significantly to well-being (Csikszentmihalyi & Wong, 1991; Lucas, 2001; Veenhoven, 1996). Moreover, research shows that experiential purchases (i.e., to acquire life experiences) make people happier than do material purchases (i.e., to acquire material possessions) (e.g., Boven, 2005). Yet well-being also appears to correlate with consumer products; for example, happy consumers show greater passion for newest electronic products (e.g., Oropesa, 1995), and well-being may affect consumers' preferences for and enjoyment of leisure products or services (e.g., Csikszentmihalyi, 1999; Lu & Argyle, 1991; Lyubomirsky, King, & Diener, 2005). However, no existing research quantifies the extent of the association between hedonic products and well-being. Actual consumption behavior, especially with regard to hedonic products that emerge as most relevant to well-being (e.g., Chatzisarantis et al., 2003; Csikszentmihalyi, 1999; Hirschman, 1982; Scitovsky, 1976, 1986), rarely appears linked empirically to well-being. Therefore, the relationship between the consumption of hedonic products and well-being is well justified as a research focus for this thesis.

1.1.3 Potential benefits to consumers, organizations, and policymakers

Understanding the mechanisms that mediate the effect of objective circumstances on well-being also has potential benefits for consumers and policymakers. For example, if objective circumstances affect well-being but are mediated by people's subjective satisfaction with their circumstances, policymakers should realize that their efforts to improve objective circumstances, such as education, health, the environment, and welfare, could not increase well-being; rather, they need to incorporate satisfaction factors to enhance this well-being. This finding would also provide a guideline for consumers; what they have (e.g., income, house, health, marriage, job) might be difficult to change, but it also may not be very important for a happy life, so they should change their attitudes toward what they have to enhance their well-being (see Chapter 2).

Understanding the relationship between the consumption of hedonic products and well-being also has crucial implications for consumer product providers. Moreover, ascertaining how, for example, the consumption of hedonic products might affect well-being may enable consumers to optimize their own consumption behavior to achieve higher and more lasting well-being (Lyubomirsky & Dickerhoof, in press). If leisure consumption affects well-being, mediated by satisfaction with the use of leisure time, social life, and health, consumers can derive guidelines for how they should engage in leisure activities to improve their social connectedness, health, and leisure life, which should enhance their well-being. Moreover, such a finding would provide hedonic product providers with a clearer idea about what consumers actually pursue when they consume such products. Their products and marketing communications should work to satisfy such alternative requirements. Finally, the demonstration of a positive relationship between consumption and well-being might benefit marketers by improving the image and reputation of marketing in society (see Chapter 3).

In turn, determining how well-being might affect people's consumption behavior will benefit hedonic product providers in their attempts to understand whom they should target and predict future demand for their products. If well-being positively affects the consumption of low-cost hedonic products, hedonic product providers should make high well-being consumers their target audience, and they should invest more in developing and producing low-cost hedonic products to satisfy these happy consumers. This finding also might suggest that policymakers should establish welfare policies that not only enhance the well-being of the residents but also stimulate market consumption, which in turn can benefit the economy of the country (see Chapter 4).

1.2 RESEARCH ISSUES

In line with these justifications, this research considers three issues in particular, addressed in the three empirical chapters (Chapters 2–4). These three research issues are as follows:

- Research issue 1: How much does satisfaction with objective circumstances within life domains mediate the relationship between corresponding objective circumstances and SWB?
- Research issue 2: How much does hedonic consumption affect SWB, and how much is the relationship mediated by people's satisfaction with their relevant life domains?
- Research issue 3: How does well-being affects hedonic consumption, and does it have differential impacts on hedonic service consumption versus hedonic durable consumption. If so, why?

1.3 METHODOLOGY

This section discusses the concept of SWB and its empirical measurement. Longitudinal national panel data are most suitable for this research. The variables used in each empirical study are described in the corresponding empirical chapters and therefore are not repeated here. For all the relationships examined in this research, the respective studies estimate econometric models, which are explained in corresponding chapters. Stata 10 supports the data analysis throughout.

1.3.1 Defining SWB

A detailed review of the definitions of SWB by Diener (1984) and Sheldon and Lyubomirsky (2007) suggests that definitions of SWB can be grouped into three categories. First, using external criteria, one definition refers to “leading a virtuous life” (Sheldon & Lyubomirsky, 2007, p. 130). In this definition, SWB possesses some desirable quality rather including a person’s feelings or emotions. The criterion for happiness is not the actor's subjective judgment but the value framework of the observer. Second, a definition based on people’s cognitive evaluation of their lives reflects their subjective judgments of satisfaction with their lives as a whole (Shin & Johnson, 1978). This definition, labeled life satisfaction, relies on people’s subjective determination of what the good life means (Diener, 1984). Third, the balance of positive affect (i.e., inspired, pleased, excited) to negative affect (i.e., anxious, upset, depressed) definition refers to typical moods (Bradburn, 1969). Positive and negative affect have independent and incremental correlations with global well-being (Beiser, 1974; Bradburn, 1969; Bradburn & Caplovitz, 1965), so attempts to enhance well-being should both reduce negative affect and increase positive affect.

Diener (1984) points out that well-being has three hallmarks: (1) It is subjective and relates to the uniqueness and importance of the evaluator’s perspective; (2) it includes

positive measures rather than just the absence of negative factors; and (3) it typically includes a global assessment of all aspects of a person's life. Some authors add that it must be experienced unconsciously and continuously (Diener & Lucas, 2000) and is characterized by long-term evaluations (Lyubomirsky & Dickerhoof, 2005). Because of these characteristics, the second and third definitions of SWB—life satisfaction and judgments of the frequency of positive and negative affect—receive the most research attention. Some authors suggest that SWB should reflect a combination of all three quantities, that is, positive affect, life satisfaction, and negative affect (e.g., Diener, Suh, Lucas, & Smith, 1999; Sheldon & Lyubomirsky, 2007; Siegrist, 2003). They therefore define SWB as “frequent positive affect, high life satisfaction, and infrequent negative affect” (Lyubomirsky, Sheldon, & Schkade, 2005, p. 115).

However, this definition is so comprehensive that it might overlook some detail. Perhaps even more important, the relationship of satisfaction and affect has not been thoroughly researched (Diener, 1984), though it could have a crucial influence on how consumers’ subjective satisfaction factors interact with objective circumstances and/or consumption behaviors to affect well-being. Therefore, this thesis follows Bradburn’s (1969) perspective, focuses on consumers’ emotional well-being, and defines SWB as the frequency of experiencing positive affect and the infrequency of experiencing negative affect during a particular period in life. This definition reflects more than a consumer’s psychological state of happiness; it also involves the ability to cope and enjoy life and pertains to the psychological health of a person. Following existing research, this thesis uses the terms happiness and SWB interchangeably.

1.3.2 Measuring SWB

As an attitude that is not accessible to public observation, SWB typically is studied by asking people how happy or satisfied they feel (Powdthavee, 2007). How, then, can SWB be captured? Most well-being research relies on surveys (Graham, Eggers, & Sukhtankar, 2004), which may include single- or multiple-item questions about how

the respondent feels about his or her well-being. Table 1.1 summarizes SWB scales used in previous large surveys.

Single-item scales. When the goal of research is to measure quality of life (QOL; Campbell, 1976), researchers normally use single-item survey questions (see Table 1.1), such as the three-point happy scale and the World Values Survey (e.g., Diener & Oishi, 2000). These surveys record responses to questions such as, “Taken all together, how happy would you say you are: very happy, quite happy, not very happy, not at all happy?” Another commonly used single-item scale is the life satisfaction scale, used in European surveys such as the German Socio-Economic Panel (GSOEP) (e.g., Stutzer & Frey, 2003) and the Eurobarometer Survey (e.g., Christoph & Noll, 2003). They ask questions such as “How satisfied are you with your life in general?” and employ an ordered scale.

Table 1.1: Subjective well-being scales

Study	Scales	Description
Cantril (1965)	Self-Anchoring Ladder (single-item)	A nine-rung ladder is anchored at the top with "best life for you" and at the bottom with "worst possible life for you." Respondent marks one rung.
Gurin, Veroff, & Feld (1960)	Gurin Scale (single-item)	To a question about how things are these days, respondent chooses among "very happy," "pretty happy," and "not too happy."
Andrews & Withey(1976)	Delighted-Terrible Scale (single-item)	To a question about "how happy you feel about how happy you are," the respondent selects one of seven responses ranging from “delighted” to "terrible."
Palomar (1997, citing Fuentes & Rojas, 2001)	Three-point happy scale (single-item)	To a question about: "Taking everything into consideration, how happy are you? very happy, more or less happy, unhappy."
Graham, Eggers, & Sukhtankar (2004)	Russia Longitudinal Monitoring Survey (RLMS, single-item)	Asks respondents “to what extent are you satisfied with your life at the present time,” “not at all satisfied,” “less than satisfied,” “both yes and no,” “rather satisfied,” and “fully satisfied.”

Diener and Oishi (2000)	World Values Survey (single-item)	To a question about “Taken all together, how happy would you say you are: very happy, quite happy, not very happy, not at all happy?”
Frey & Stutzer (2000)	German Socio-Economic Panel (single-item)	To a questions about ‘How satisfied are you with your life in general?’ on an 10-point scale.
Christoph & Noll (2003)	Eurobarometer Survey (single-item)	To a question about “On the whole are you very satisfied, fairly satisfied, not very satisfied, or not satisfied with the life you lead?”
Lawton (1975)	PGCMS (multi-item, geriatric)	17-item scale measures lonely dissatisfaction, agitation, and attitude toward one's aging.
Morris & Sherwood (1975)	PGC-M (multi-item, geriatric)	Revision of the original PGCMS.
Neugarten, Havighurst, & Tobin (1961)	LSI (multi-item, geriatric)	Factors measured include zest vs. apathy, resolution, fortitude, and congruence between desired and achieved goals.
Wood, Wylie, & Sheafor (1969)	LSI-Z (multi-item, geriatric)	13-item revision of the LSI.
Kozma& Stones (1980)	MUNSH (multi-item, geriatric)	24-item scale measures positive and negative affect and experiences.
Tellegen (1979, citing Larsen, Diener, & Emmons, 1984)	Differential Personality Questionnaire—Well-Being subscale (multi-item)	21-item subscale of an omnibus personality inventory measures a combination of positive affect, positive attitudes, and optimism.
Campbell, Converse, & Rodgers (1976)	Index of General Affect (multi-item)	Subjects rate their lives on eight semantic differential scales such as enjoyable miserable.
Underwood & Moore (1980)	Mood Survey (multi-item)	Two subscales measure hedonic level and hedonic variability or reactivity (16 items).
Dupuy (1978, citing Taylor et al., 2003)	General Well-Being Schedule (multi-item)	Seven specific aspects of well-being are assessed: life satisfaction, health concerns, depressed mood, person-environment fit, coping, energy, level, and stress.
John (2004)	OHS Well-being Scale (multi-item)	Revision of the original General Well-Being Schedule
Bech, Gudex, & Johansen (1996)	WHO well-being index (multi-item)	Revision of the original General Well-Being Schedule.
Fordyce (1978, citing Larsen, Diener, & Emmons, 1984)	Self-Description Inventory (multi-item)	Several subscales are included: achieved personal happiness, happy personality, happiness values and attitudes, and happy life-style. Two forms are available that correlate .95.
Bradburn(1969)	Affect Balance Scale (multi-item)	10 items designed to measure both positive and negative affect.
Fordyce (1977, citing	Happiness Measures	Asks respondents to estimate the percent of

Diener, 1984; Larsen, Diener, & Emmons, 1984)	(multi-item)	time they are happy, unhappy, and neutral. Also includes an 11-choice scale on which respondents rate overall happiness.
Kammann & Flett (1983)	Affectometer (multi-item)	Measures the frequency of positive and negative affect.
Larsen (1984)	Affect Intensity Measure (multi-item)	Measures the typical strength or intensity of a person's affective responses.
Diener, Emmons, Larsen, & Griffin (1985)	Satisfaction with Life Scale (SWLS, multi-item)	Measures general life satisfaction and is suitable for all ages, from adolescents to adults.
Watson, Clark, & Tellegen (1988)	Positive and Negative Affect Scale (PANAS, multi-item)	Measures two primary dimensions of mood using two 10-item scales for both positive and negative affect.
Ryff, Carol D. (1989)	Psychological Well-Being scale (PWB, multi-item)	84-item measures six dimensions of SWB: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, self-acceptance.
Palomar (1997 citing Fuentes & Rojas 2001)	Self-fulfilments index (multi item)	4-item measures sense of purpose in life, achievements in life, the degree of your success in life, anchored D-T scale.
Leelakulthanit, Day, & Walters (1991)	Overall life satisfaction measure (multi-item)	Four subscales are included: Delighted-Terrible Scale, the seven-point Smiling/Frowning Faces Scale, the verbally anchored seven-point "Completely Satisfied to Completely Dissatisfied Scale," and the nine-point Ladder Scale.
Oropesa (1995)	Life Style survey (multi-item)	7-item scale measures life satisfaction and hope.
Clark & Oswald (1994)	General Health Questionnaire (GHQ12, multi item)	Measure positive and negative affect using 12-item scales, with the responses are made on a four-point scale of the frequency of a feeling in relation to a person's usual state.

Note. PGCMS = Philadelphia Geriatric Center Morale Scale; LSI = Life Satisfaction Index; MUNSH = Memorial University of Newfoundland Scale of Happiness.

Source: Adapted from Diener (1984), with many additions.

Although single-item scales enjoy the benefit of brevity, their reliability and validity are in question (Powdthavee, 2007), especially for measuring complex concepts. First, variance due to the specific wording of the item cannot be averaged out, because it is impossible to obtain estimates of internal consistency. Second, single-item scales tend to be less reliable over time than are multi-item scales (Diener, 1984). Third,

single-item scales oversimplify complex phenomena such as SWB (Sirgy, Meadow, & Samli, 1995), because they cannot cover all aspects of SWB or offer a finely differentiated view of a person's SWB but instead must rely on subjects' own integration to arrive at a single response. Evidence suggests that SWB may be composed of several components, but information about these components gets lost in single-item scales (Diener, 1984).

According to measurement theory (Churchill & Peter, 1984), measuring a complex concept with multiple indicators rather than one helps depict the complexity of the concept. It also can avoid possible distortions and misclassifications, minimize the effect of the bad wording of one question, and differentiate the results, which in turn increases the reliability, validity, and precision of the research (De Vaus, 1991; Nunnally & Bernstein, 1994). Accordingly, for a concept such as overall SWB, which comprises a variety of specific domains, respondents may not know which indicators they should include in considering their well-being. Instead of using an abstract concept or question such as general life satisfaction, clarifying the specific indicators with multiple questions in a multi-item scale may measure well-being more effectively.

Multi-item scales. The multi-item scales designed for measuring SWB in Table 1.1 rely on the structure of SWB (Diener, 1984). The most prominent scales are the Satisfaction with Life Scale (SWLS), Positive and Negative Affect Scale (PANAS), and Psychological Well-Being Scale (PWB), all of which display excellent psychometric properties (Lyubomirsky & Dickerhoof, 2005).

The Satisfaction with Life Scale (Pavot & Diener, 1993) is a short, five-item instrument, rated on a 1–7 agree–disagree scale. The five items are: “In most ways my life is close to my ideal,” “The conditions of my life are excellent,” “I am satisfied with life,” “So far I have gotten the important things I want in life,” and “If I could live my life over, I would change almost nothing.” The SWLS is narrowly focused to

assess global life satisfaction and does not tap positive or negative emotions (Pavot & Diener, 1993). This scale therefore is best suited to research that views well-being as satisfaction with life as a whole or specific domains of life, not the emotional well-being defined for this thesis.

The Positive and Negative Affect Scale (Watson, Clark, & Tellegen, 1988) measures two primary dimensions of mood using two 10-item scales for positive and negative affect, rated 1–5 on a not at all–extremely scale. The two scales include interested, distressed, excited, upset, strong, guilty, scared, hostile, enthusiastic, and proud versus irritable, alert, ashamed, inspired, nervous, determined, attentive, jittery, active, and afraid. Although the scale focuses on both positive and negative emotions, it basically assesses momentary moods, which can vary greatly (Sheldon & Lyubomirsky, 2007). However, a useful measure of SWB should be sensitive only to changes in conditions, not to immediate mood fluctuations (Campbell, Converse, & Rodgers, 1976). A positive and negative emotion scale that reflects a person’s psychological state and mental health may be more reliable in predicting enduring well-being, so PANAS does not really reflect the notion of a person’s enduring well-being, which means it is not a great measure for SWB for this thesis.

Finally, the Psychological Well-Being scale (Ryff, 1989) taps six dimensions: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. Sample items include, “People rarely talk me into doing things I don’t want to do” (autonomy), “In general, I feel I am in charge of the situation in which I live” (mastery), “I feel like I get a lot out of my friendships” (growth), “Most people see me as loving and affectionate” (relations), “I have a sense of direction and purpose in life” (purpose), and “In general, I feel confident and positive about myself” (self-acceptance). This 84-item measure assesses both cognitive and affective aspects of SWB (Lyubomirsky & Dickerhoof, 2005), which does not suit the definition of SWB in this thesis, which considers emotional well-being.

Although the definition of SWB adopted for this thesis follows Bradburn's (1969) definition of SWB, the study does not use Bradburn's Affect Balance Scale, which suffers from the following weaknesses: (1) The positive affect items more strongly reflect arousal content; (2) specific nonaffective content marks the items; (3) the simple occurrence of feelings is measured, not their intensity or frequency; and (d) the scale may suffer from acquiescence response bias, as well as ceiling and floor effects (Diener, 1984).

Therefore, the studies described in this thesis use the multi-item GHQ12, another prominent measure of a person's SWB. It consists of statements about feelings of happiness, enjoying normal daily activities, unhappiness or depression, and anxiety based insomnia, among others (Hankins, 2008a; Hu et al., 2007; Clark, 2003), and the frequency of experiencing these feelings in a particular period.

General Health Questionnaire (GHQ12). The General Health Questionnaire (GHQ12) used for the British Household Panel Survey (BHPS) is widely used in medical, psychological, sociological, and economic research and it is the most commonly used measure of SWB in U.K. literature (Clark, 2003; Clark & Oswald, 1994; Clark, Georgellis, & Sanfrey, 2001; Shields & Price, 2005). GHQ12 comprises six questions that are positive descriptions of affect (e.g., "felt able to face up problems") and six that are negative descriptions of affect (e.g., "felt like a worthless person") (see Appendix 2.1) (Hankins, 2008a; Hu et al., 2007). This instrument assesses individual positive and negative affect according to responses to these 12 questions on a four-point scale pertaining to the frequency of a feeling in the person's usual state. For example, the response choices to negative statements such as 'Felt constantly under strain' are 'No more than usual', 'Not at all', 'Rather more than usual' and 'Much more than usual', with the first two options indicate the absence of a negative affect and the other two indicate the presence of this negative affect (Hankins, 2008b); while the responses to positive statements such as 'Felt reasonably happy' are 'More so than usual', 'Same as usual', 'Less so than usual' and 'Much less than usual', which indicate

the presence of positive affect and the absence of the positive affect respectively.

Following existing literature, this research uses the inverse of the caseness score form of the GHQ12, which recode the responses from each question as 0 and 1 (1 = the absence of negative affect/presence of positive affect or high level of psychological well-being) and then sums the frequency/number of times the person places himself or herself in the absence of negative affect/presence of positive affect or presence of negative affect/absence of positive affect to form a single index, such that higher numbers indicate increased frequency of absence of negative affect or presence of positive affect, or increased levels of psychological well-being (Clark, 1994). Research evidence demonstrates that the Pearson's correlations between the GHQ12 and other affective scales show high correlations, which include the GHQ12 and measures of anxiety (STAI, 0.625**), stress (DASS, 0.602**; CES-D, 0.602**), depression and negative affectivity (NA, 0.680**), self-esteem (RSE, 0.622**), and self-efficacy (GSE, -0.431**)¹ (Tait, French, & Hulse, 2003). This demonstrates a satisfactory content validity of GHQ 12 in measuring related positive and negative affective traits (Montazeri et al., 2005; Eshaghi et al., 2006). Indeed, multiple linear regression also shows that affective traits such as depression, anxiety, self-esteem and stress were significant independent predictors of GHQ, with the model accounted for 68% of the variance (Tait, French, & Hulse, 2003). GHQ12 thus precisely captures the content and essence of positive and negative affects in well-being concept in this research. In addition, with a Cronbach's alpha score of 0.89 in the BHPS sample (Clark, 2003), GHQ12 offers a reliable measure of psychological well-being (Argyle, 1989; Shields & Price, 2005). It assesses SWB as an enduring rather than a transient state.

1.3.3 Sample and data

¹ STAI, State-Trait Anxiety Inventory; DASS, Depression Anxiety Stress Scales; CES-D, Centre for Epidemiological Studies Depression Inventory; NA, Negative Affectivity scale; (RSE, Rosenberg Self-esteem Scale; GSE, Generalized Self-efficacy Scale (Tait, French, & Hulse, 2003).

By employing longitudinal panel data with a large, nationally representative sample, this study overcomes the restrictions imposed by the methodologies employed by most previous studies. Most well-being research (especially that which uses large samples) relies on cross-sectional (survey) data (e.g., Graham, Eggers, & Sukhtankar, 2004). This research links circumstantial factors to SWB, such as wealth, income, employment, marriage, health, religion, and education (Diener, Suh, Lucas, & Smith, 1999; Lyubomirsky, Sheldon, & Schkade, 2005). For example, empirical evidence shows that people who are paid more are relatively happier (e.g., Diener, Sandvik, Seidlitz, & Diener, 1993) and that middle-class people are somewhat happier than working-class people (e.g., Warr & Payne, 1982). Married people are happier than those who are not across different cultures (Diener, Gohm, Suh, & Oishi, 2000). Healthy people report being happier than sick people (e.g., Okun et al., 1984). Yet cross-sectional investigations cannot establish causality with the correlational evidence they derive (Lyubomirsky, King, & Diener, 2005). Therefore, even for some intuitively appealing causal findings, such as marriage and income, the results are by no means certain (Diener, Suh, Lucas, & Smith, 1999).

Cross-sectional research also cannot follow the same people over time, which prevents any examination of the dynamics of SWB (Marks & Fleming, 1999). The vast majority of cross-sectional studies therefore report between-subjects effects rather than investigating well-being longitudinally or examining within-subject effects. Thus, it cannot determine what people might do to increase their well-being or become happier (Lyubomirsky, Sheldon, & Schkade, 2005). To make this determination, longitudinal panel data are required (Graham, Eggers, & Sukhtankar, 2004).

Longitudinal literature is even sparser with regard to the consequences of well-being. In their review paper, Lyubomirsky, King, and Diener (2005) document extensive cross-sectional correlational evidence about how happy people appear more likely to succeed in culturally valued goals (e.g., work, love, health) and exhibit behavior and

cognitions that parallel successful life outcomes (e.g., self-efficacy, creativity, sociability, altruism, immunity, coping). However, they could not identify topics such as enjoyment of social activities or interactions, which appear in Chapter 4 of this thesis. These authors point out that longitudinal research, which is more informative and persuasive with regard to causal directions, should be a high priority; this thesis responds to that challenge.

Experimental studies may offer an even stronger test of causal hypothesis, but this method normally uses only small convenience (e.g., student) samples. For example, experimental work into how positive affect might lead to behaviors that parallel success prompts respondents, often students, to experience a positive mood and then assesses their task performance (e.g., Baron, 1987; Sarason, Potter, & Sarason, 1986) or measures their desire to engage in social activities or leisure activities (Cunningham, 1988; Lyubomirsky, King, & Diener, 2005). Similarly, recent experimental work examining how intentional activities affect well-being employ small student samples (e.g., Lyubomirsky & Dickerhoof, in press; Lyubomirsky, Sheldon, & Schkade, 2005; Seligman, Steen, Park, & Peterson, 2005; Sheldon & Lyubomirsky, 2006). This approach leaves open the question about whether the relationships hold for the general population. This issue significantly influences the value of the results for marketing practice and policy making. It becomes especially crucial for this study, which examines the relationship between consumption and well-being, because students are not a primary consumption group.

In addition, the use of longitudinal panel data means that this thesis can filter out stable personality differences, which do not change over time but are systematically correlated with consumption and well-being. The studies assess concrete changes in consumption caused by changes in well-being (Graham, Eggers, & Sukhtankar, 2004; Sheldon & Lyubomirsky, 2006; Stutzer & Frey, 2003).

This argument indicates that the use of a longitudinal, large national panel survey is

best suited for the purpose of this thesis. These data increase confidence in the derived implications for consumers, policymakers, and marketing practice.

1.3.4 The Econometrics Models for the Present Research

The key issue that determines whether we use fixed-effects or random-effects is whether we can plausibly assume error component u_i is correlated with (any) explanatory variables x_{it} in the estimated econometrics model (see the models in each empirical chapter for an example) (Hill, Griffiths, & Lim, 2008). On the basis of Hill, Griffiths, and Lim (2008), endogeneity is a potential problem in random-effects model. The authors argue that if the random error u_i is correlated with any of the right-hand side explanatory variables in a random-effects model, then the random-effects estimator is biased and inconsistent. It will attribute the effects of the error component to the included explanatory factors. However, the fixed-effects estimator is consistent even in the presence of a correlation between the random error component u_i and any of the explanatory variables x_{it} . This is because the fixed-effects transformation eliminates the random effect u_i as well as any other time-invariant factors.

The correlation between the individual specific error component u_i and the explanatory variables is a typical problem in well-being research. Take our empirical study 2 estimating a leisure consumption function that enhances well-being as an example. We have a panel data consisting of 4 years' observations on consumer's well-being, leisure consumption, and some other well-being explanatory variables such as age, health, income, marital status, number of children and preschool children, education, vocational qualification, job status and partner's job status, household size, property ownership, and region. Meanwhile, each consumer has his or her own personality traits (e.g., optimistic vs. pessimistic or extraverted vs. introverted). These variables are not directly measurable and thus cannot be explicitly included in the function but are included in u_i . These personality traits are very likely to be correlated with a consumer's leisure consumption and some other well-being explanatory

variables such as health status, job status, marital status, and income. An optimistic and extraverted consumer is more likely to be sociable and active and therefore spend more on leisure and has better health status, and he or she is also more likely to be married and employed, according to well-being literature, which all lead to high levels of well-being (see Lyubomirsky, King, & Diener, 2005 for a review).

The correlation between the personality traits u_i and the explanatory variables similarly exists in the well-being functions in empirical study 1, which estimate the effects of 6 life domains on well-being with 4 years of observations on consumer's well-being, health, marriage life, housing, work life, leisure life, and income, and other well-being explanatory variables as described in empirical study 2. In this case, an optimistic and extraverted consumer is probably healthy and enjoy engaging in various leisure activities, more importantly, he or she is more likely to enjoy and be satisfied with all these life domains, which in turn significantly contribute to well-being.

The correlation problem happens to empirical study 3 as well, in which we estimate 2 hedonic consumption functions, with leisure consumption and hedonic durable consumption as dependent variables respectively, and well-being and other hedonic consumption influencing factors (the same as those in empirical study 1 and 2) as explanatory variables. It is very possible that unmeasured consumer's personality traits, contained in u_i , will be correlated with well-being and other explanatory variables. Specifically, optimistic and extraverted consumers are happier and more active and sociable (see Lyubomirsky, King, & Diener, 2005 for a review) and thus would probably engage in various leisure activities more frequently and also spend more on these activities. Given the existence of such correlations, fixed-effects estimations seem to be more appropriate for all these studies.

However, apart from the correlation problem, another issue needs to be considered in this research is that the dependent variables in most of our functions are ordinal in

nature and their values are not completely observable. For example, in empirical study 1 and study 2, the dependent variables are SWB, which is measured with GHQ12 in a range of scores from 0 to 12; and the dependent variable of leisure consumption in empirical study 3 is also an ordinal variable with scores ranging from 0 (spend nothing on leisure per month) to 12 (spend over £160 on leisure per month). These numerical values reflect only the ranking and natural ordering of well-being and leisure consumption. Application of linear statistical models such as fixed-effects to such data can result in biased estimates of factor loadings and thus are inappropriate (Gujarati, 2003; Hill, Griffiths, & Lim, 2008). Categorical data factor analyses models – nonlinear random effects ordered probit and/or ordered logit models² are considered to be more theoretically appropriate in their statistical underpinnings for the ordinal data (Abbott et al., 2006), though the endogeneity problem in random effects models remains.

In sum, linear fixed-effects and non-linear random-effects ordered probit model each has its advantages and shortcomings. However, there is no fixed-effects ordered probit model (available in software econometrics packages), because in a fixed-effects model we have to estimate a dummy for each individual, then the software does not converge as it has too many variables to handle. Therefore, there is a tradeoff in choosing one or the other. In our empirical study 1 and study 2, considering the complicated interpretation of ordered probit model in analysing a mediating relationship, we treat well-being as continuous variable and apply linear fixed-effects models. However, given the relatively simple and direct relationships between independent (well-being) and dependent variables (leisure consumption) in empirical study 3, we base on the ordinal nature of both independent and dependent variables

² The difference between ordered probit and ordered logit is the former depends on the errors being standard normal while the latter depends on the assumption that the random errors follow a logistic distribution (Hill, Griffiths, and Lim 2008). However, there is little difference between the results of the two models and there is no compelling reason to choose one over the other (Gujarati, 2003; Hill, Griffiths, & Lim, 2008). Following economics literature (e.g., Clark, 2003; Gujarati, 2003; also see Hill, Griffiths, & Lim, 2008), only ordered probit model is considered in the present research.

and apply non-linear random-effects ordered probit model in estimating the effect of well-being on leisure consumption. Due to hedonic durable consumption in empirical study 3 is a continuous variable, fixed-effects would be the most appropriate model to estimate the effect of well-being on hedonic durable consumption and is thus applied in this study.

1.3.5 Theoretical Justification for Control Variables

Following existing literature, the control variables used in this research are gender, health, age, age², income, marital status, number of children and preschool children, education, vocational qualification, job status and partner's job status, household size, property ownership, and region (e.g., Oropesa 1995; Graham, Eggers, & Sukhtankar 2004). This is because existing research consistently reveals that these individual characteristics and resources valued by society correlate with happiness and consumption. For example, marriage (Mastekaasa, 1994), a comfortable financial situation (Diener & Biswas-Diener, 2002), superior health (Koivumaa-Honkanen et al., 2004), more years of education (Stutzer and Frey, 2003), being employed especially the self-employed, and looking after the family (Oswald, 1997) all correlate with high levels of happiness. In addition, research also shows that men are slightly happier than women (Wilson, 1967) and happiness is U-shaped in age (Clark, 2003). Household size is always included in relevant research to incorporate the fact that household income has to be shared among household members, and more importantly, to capture the fact that people live with others in what are probably close and supportive relationships (Stutzer & Frey, 2003). Finally, number of children and preschool children at home and region are also found related to one's happiness (Oropesa, 1995; see Diener et al., 1999; Lyubomirsky, King, & Diener, 2005 for a review). Therefore, well-being is probably different for people with these different characteristics and resources. And the observed lower subjective well-being of people who spend less on leisure might just reflect that these are people with disadvantaged characteristics and resources such as health problem, low income, being divorced, and/or unemployed. In

order to apply the test for compensation, groups of people who are very similar have to be empirically constructed. Technically, a multiple regression approach is applied to control for all these individual characteristics (Stutzer & Frey, 2007).

1.4 OUTLINE OF THE DISSERTATION

This thesis contains five chapters. Chapter 1 provides this overview of the thesis and a research background.

1.4.1 Chapter 2

The primary focus of early theoretical formulations was to identify the external circumstantial or internal subjective cognitive factors that influence SWB (Diener, Suh, Lucas, & Smith, 1999). Thus, a common characteristic of previous research is its focus on understanding the independent, direct effects of two categories of factors on well-being. Yet the question of how they may interact to form the indirect and mediating effects on well-being has not been resolved (Brief, Butcher, George, & Link, 1993; Diener, Suh, Lucas, & Smith, 1999). The first empirical chapter addresses this question and attempts to ascertain how objective life circumstances may affect well-being indirectly through the mediating effect of satisfaction with objective circumstances.

An integrative model of bottom-up and top-down theories of SWB should provide the most comprehensive well-being model (Brief, Butcher, George, & Link, 1993; Diener, Larsen, & Emmons, 1984; Emmons, Diener, & Larsen, 1986; Headey & Wearing, 1989; Lyubomirsky, 2001). The proposed well-being model holds that objective life circumstances play an important role in determining well-being (bottom-up process), but well-being is mainly achieved through the mediating effects of satisfaction with the circumstances (top-down processes) (Lyubomirsky, 2001; Lyubomirsky &

Dickerhoof, in press). In Chapter 2, the model is tested across six life domains—health, marriage life, housing, work life, leisure life, and income—using three years of longitudinal data from the BHPS and more than 10,000 consumers.

1.4.2 Chapter 3

Recent well-being literature suggests that neither objective circumstantial nor subjective personality factors offer the best route to longitudinal increases in well-being, because the former have poor effects on well-being, and people do not have considerable control over the latter. Therefore, this chapter considers what people might do to enhance their well-being, a key component for understanding well-being (Diener & Biswas-Diener, 2008). Identifying the critical mediators underlying the effectiveness of happiness-enhancing activities also represents an important research focus (Lyubomirsky, 2001; Lyubomirsky & Dickerhoof, in press). In response to recent research calls in the context of hedonic product consumption, this empirical chapter investigates two main questions: How much does hedonic consumption affect SWB? How much is the relationship mediated by people's satisfaction with their relevant life domains?

Bottom-up theories view well-being as experienced through day-to-day, positive and enjoyable experiences (Brief, Butcher, George, & Link, 1993; Diener, 1984). Therefore, the consumption of hedonic products, which produces small, pleasurable experiences frequently and regularly, should relate positively to SWB. In addition, according to the integrative model of bottom-up and top-down theories, well-being appears to represent the joint effect of desirable circumstances and the way people interpret them (Diener, Suh, Lucas, & Smith, 1999; Lyubomirsky, 2001; Lyubomirsky & Dickerhoof, in press). Using this concept as a foundation, recent happiness intervention research suggests a mediating construal model, in which objective experiences influence well-being through the mediating role of interpretations and perceptions of life circumstances and experience (e.g., Emmons & McCullough 2003;

Lyubomirsky & Dickerhoof, in press). This mediating model may apply to the context of hedonic product consumption behavior as well. However, because consumers generally use their regular, positive consumption behavior to seek “the good life” and improve the quality of life domains associated with consumption, Chapter 3 considers the potential mediating mechanism of improving the quality of relevant life domains on the effect of consumption on well-being. The effect of hedonic product consumption on well-being should be mediated primarily by satisfaction with the life domains associated with that consumption.

The chapter also empirically examines leisure consumption. The relevant life domains identified for leisure consumption are leisure life, social life, and health. Four years of longitudinal panel data from BHPS, including more than 25,000 observations, test the hypotheses.

1.4.3 Chapter 4

Beyond what people can do to enhance their well-being (Chapter 3), understanding well-being requires considering the functions of well-being, rather than just its pleasures (Diener & Biswas-Diener, 2008). Cross-sectional correlational evidence shows that happy people are more likely to succeed in culturally valued goals and exhibit behavior and cognitions that parallel successful life outcomes. However, actual consumption behavior of hedonic products remains largely ignored in this line of research. Therefore, the final empirical chapter investigates: (1) the relationship between well-being and hedonic consumption and (2) the way in which well-being affects hedonic service consumption and hedonic durable consumption, perhaps differently. In addition, Chapter 4 explains why SWB might lead to hedonic service and durable consumption.

Broaden-and-build theory suggests that positive emotions broaden people’s thoughts and actions—to play, explore, savor, and integrate—which serve to build a variety of

enduring personal resources, including physical health, skills and knowledge, social connectedness, and optimism (Fredrickson, 1998, 2001). In applying this theory to the context of hedonic service consumption, this study argues that enduring positive emotions (well-being) lead to active consumption of pleasant and rewarding hedonic services. Therefore, SWB should be positively associated with hedonic service consumption. However, high well-being consumers spend more on hedonic services, primarily to build their enduring personal resources rather than for mere fun, so SWB also may be positively associated with high frequency of involvement in the use of low-cost hedonic services. Because hedonic durables are characterized by idleness, instead of active involvement and effort (Tkach & Lyubomirsky, 2006), happy consumers may enjoy shopping and replacing hedonic durables more frequently than unhappy consumers, but they do not spend more on these less rewarding, hedonic products. Chapter 4 therefore proposes that SWB is not associated with hedonic durable consumption but is associated with the frequency of purchasing low-cost hedonic durables.

The empirical examination includes leisure and hedonic household electronics consumption, which represent hedonic service consumption and hedonic durable consumption, respectively (e.g., Csikszentmihalyi, 1990; Lee, Sirgy, Larsen, & Wright, 2002; Leelakulthanit Day, & Walters, 1991; Oropesa, 1995; Veenhoven, 1994). Six years of longitudinal panel data from BHPS, collected from late 2001 to early 2006 and including more than 65,000 observations, test the hypotheses in this chapter.

1.4.4 Chapter 5

Finally, Chapter 5 provides a summary of the main findings from the research undertaken for this thesis. In addition, it outlines the contributions to theory and practice and highlights some overall limitations of the research and implications for further investigations.

CHAPTER 2

WHEN HAVING IS NOT ENOUGH: THE MEDIATING ROLE OF SATISFACTION WITH LIFE CIRCUMSTANCES ON OVERALL SUBJECTIVE WELL-BEING

2.1 INTRODUCTION

Enhancing the well-being or subjective well-being (SWB) (or happiness, as some researchers refer to it; see Diener & Seligman 2004; Lyubomirsky, King, & Diener, 2005; Lyubomirsky, Sheldon, & Schkade, 2005) of their citizens remains one of the most important concerns of governments and policymakers (Oswald, 1997). Despite efforts in areas such as education, health, the environment, and welfare designed to increase well-being (Diener & Seligman, 2004) and unprecedented economic growth and social development in recent decades, national survey evidence from the United States, European countries, and Japan shows that the overall well-being of the residents has not increased (Blanchflower & Oswald, 2004; Diener & Oishi, 2000; Diener & Suh, 1997; Esterline, 1995; Oswald, 1997). Academic research into the relationship between objective measures and a person's well-being also exhibit low correlations (e.g., Graham, Eggers, & Sukhtankar, 2004).

This discrepancy raises a critical question: What determines well-being? Researchers suggest that subjective measures, such as satisfaction with life domains, may be essential to explaining well-being (e.g., Day, 1987; Lee, Sirgy, Larsen, & Wright, 2002; Leelakulthanit, Day, & Walters, 1991; Lyubomirsky, King, & Diener, 2005; Lyubomirsky, Tkach, & DiMatteo, 2006; Nakano, MacDonald, & Douthitt, 1995). A

life domain is defined by Andrews and Withey (1976, p. 11) as “an aspect of life about which people have feelings” that has “significance for all or most people and which may be assumed to contribute ... to life satisfaction” (Campbell, Converse, & Rodgers, 1976). However, few studies simultaneously consider how objective circumstances may play a role in the relationship between satisfaction with life domains and well-being.

Some authors argue that welfare involves both favorable objective conditions (e.g., comfortable housing, healthy life environment) and subjective feelings of well-being and appreciation for life (Christoph & Noll, 2003). However, little research comprehensively examines both objective circumstances and subjective satisfaction in one study, and even fewer study how they interact in the formation of well-being. In addition, a common characteristic of these two streams of research is their focus on the direct effects of objective or subjective factors on well-being, largely ignoring the possible indirect effects or mechanisms of their effects on well-being (Brief, Butcher, George, & Link, 1993). However, such investigations are key to a deeper understanding of well-being and may have important practical implications with regard to enhancing well-being.

An exception is a study that integrates both objective circumstances and subjective interpretations to understand well-being and people’s health and that reveals physical health does not affect well-being directly but instead through the mediating role of perceived health (Brief, Butcher, George, & Link, 1993). However, the data for this notable study were collected between 1970 and 1976 at two-year intervals, and the subjects were all White men and women with an average age of more than 60 years. Thus, the relationships may not hold for the general population. Perhaps more important, research shows that other factors, such as marriage, work, leisure activities, and possession of consumer goods (e.g., houses) also are crucial in predicting well-being (Lee, Sirgy, Larsen, & Wright 2002; Leelakulthanit, Day, and Walters 1991; for a review of the relationship between well-being and marriage, jobs, and leisure,

see Lyubomirsky, King, and Diener 2005). Accordingly, this research extends Brief and colleagues' work into six additional life domains and investigates the extent to which satisfaction with the objective circumstances that mark those life domains mediates the relationship between the corresponding objective circumstances and SWB. The life domains examined herein include health, marriage life, housing, work life, leisure life, and income.

Theoretically, this research contributes to a comprehensive understanding of well-being by demonstrating the relative importance of objective circumstances and subjective satisfaction, as well as how they interact to influence well-being. Practically, the findings may enable policymakers to recognize how their actions depend largely on people's subjective satisfaction, so they may need to focus on satisfaction factors to engineer and enhance the well-being of citizens. Meanwhile, this study offers macromarketers an increased understanding of the relationship between consumers' material possessions and service consumption and their well-being. Modern marketing is not limited to concerns for profit and performance but instead features increased attention to consumers' well-being and quality of life (QOL). This new focus can "enhance the image, credibility, focus, and legitimacy of marketing" (Dagger and Sweeney 2006, p. 4; see also Sirgy, Samli, and Meadow, 1982).

The following sections offer a brief overview of SWB, including both bottom-up and top-down theories that serve as the basis for the theoretical model. Research shows that different variables have differential impacts on well-being, so the proposed hypotheses pertaining to the interrelations among the constructs include each life domain. Fixed-effects econometrics models test the hypotheses using data from a large national panel survey. Finally, this article concludes with some theoretical and managerial implications of the findings, as well as limitations and suggestions for further research.

2.2 THEORETICAL FRAMEWORK

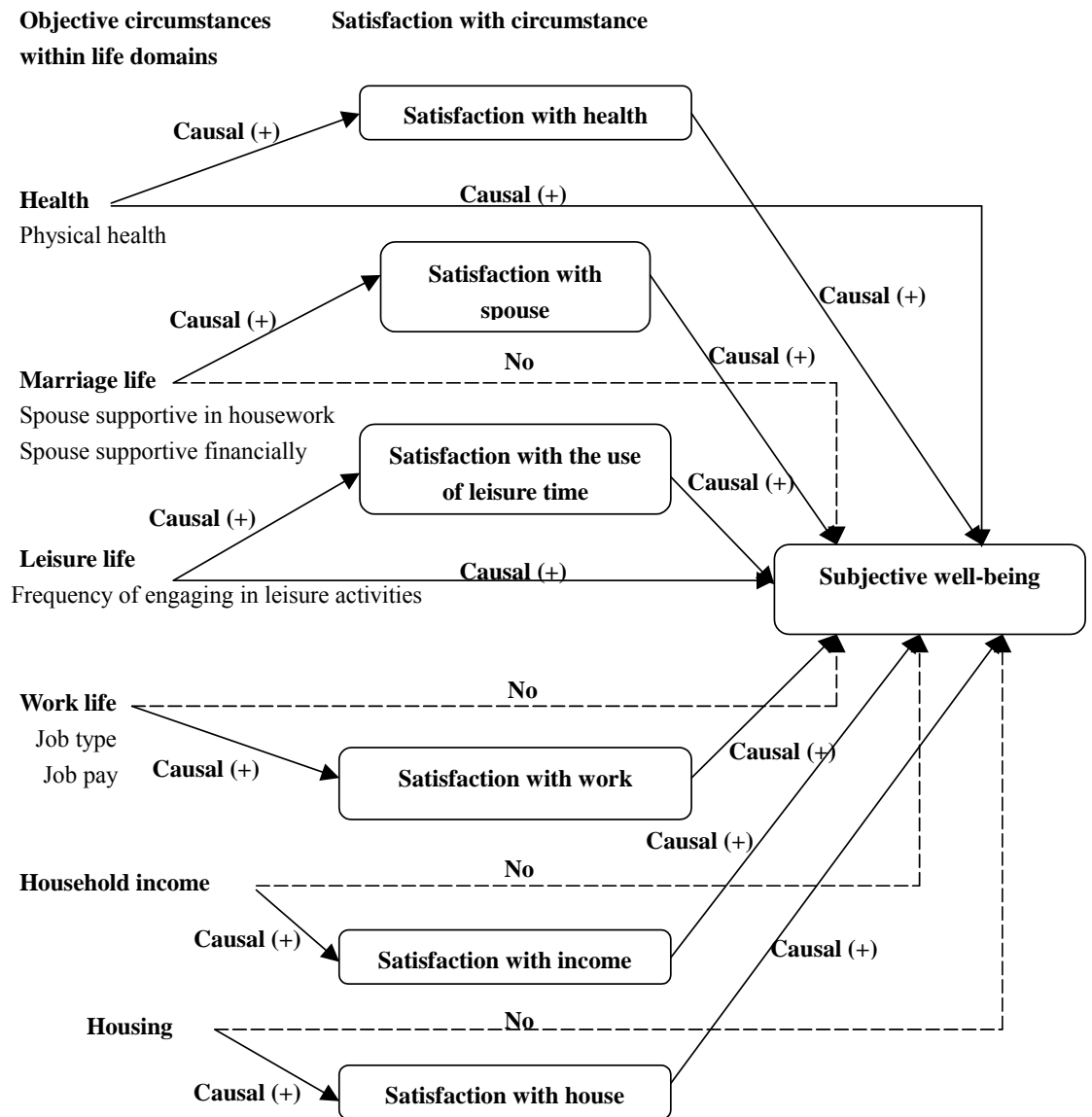
Existing arguments about whether desirable life circumstances (e.g., success at work, happy family) or positive cognitions (e.g., optimistic thinking) drive well-being are guided primarily by bottom-up versus top-down theories (Diener 1984). Bottom-up theories pertain to the effect of objective life circumstances on well-being. They propose that well-being depends on a person's life circumstances (Lyubomirsky and Dickerhoof, in press), caused by "the (summation of) pleasurable and unpleasurable moments and experiences" (Brief, Butcher, George, & Link, 1993, p. 646). In other words, a person's well-being is primarily determined by his or her objective life circumstances (Brief, Butcher, George, & Link, 1993; Feist et al. 1995; Lyubomirsky and Dickerhoof, in press). A wide body of research supports this perspective with reports of correlations between desirable objective circumstances, such as marriage, friendship, work performance, health, and well-being (see Lyubomirsky, King, & Diener, 2005). However, objective circumstances alone are often weak correlates of reports of happiness (Diener, Lucas, & Scollon, 2006; Fuentes and Rojas 2001; Graham, Eggers, & Sukhtankar, 2004), and an increasing number of authors hold that well-being may be driven more by top-down processes (Diener, Suh, Lucas, & Smith, 1999; Lyubomirsky and Dickerhoof, in press).

Top-down theories assume that well-being is caused not by external variables (e.g., objective life circumstances) but rather by the person's own disposition or personality factors, which direct his or her perceptions and judgments to positive or negative circumstances (Brief, Butcher, George, & Link, 1993; Lyubomirsky and Dickerhoof, in press). Thus, well-being primarily results from a person's subjective judgments and perceptions rather than the objective circumstances themselves (Brief, Butcher, George, & Link, 1993; Feist et al. 1995). This perspective receives support from robust finding that indicate personality and subjective interpretations determined by personality are the dominant predictors of well-being. For example, well-being

correlates with satisfaction in various specific life domains, such as family life, friends, health, jobs, leisure, and housing (e.g., Campbell, Converse, & Rodgers, 1976; Lee, Sirgy, Larsen, & Wright, 2002; Lyubomirsky King, & Diener, 2005, Lyubomirsky, Tkach, & DiMatteo, 2006; Weiss, Nicholas, & Daus, 1999).

Whereas these two main theoretical streams support one or the other theory and consider the direct and independent effects of either objective circumstances or satisfaction on well-being, this research proposes that “both kind of processes, top-down and bottom-up, are mutually at work” (Sastre, 1999, p. 209). Therefore, integrating these two theories may be essential to providing the most comprehensive well-being model (Brief, Butcher, George, & Link, 1993; Diener, Larsen, & Emmons, 1984; Emmons, Diener, & Larsen, 1986; Headey & Wearing, 1989; Lyubomirsky, 2001; Lyubomirsky & Dickerhoof, in press). The proposed well-being model holds that objective life circumstances certainly play important roles in determining well-being but that well-being mainly is achieved through the mediating effects of satisfaction with those circumstances. Research generally acknowledges that for SWB, the important element is not owning a house but being satisfied with that house. That is, objective circumstances might not have strong direct effects on well-being; rather, they are mediated by personality, which influences how satisfied the person is with his or her circumstances and which in turn directly affects overall well-being (see Figure 2.1).

**Figure 2.1: Conceptual framework of the mediating effect
of satisfaction with objective circumstance within each life domain
on the effect of circumstance on SWB**



2.3 HYPOTHESES DEVELOPMENT

Health and SWB

Health may be the single most important variable affecting well-being, because a person who is physically healthy should be more satisfied with life. However, relevant research demonstrates that the relationship is actually not this straightforward (Brief, Butcher, George, & Link, 1993; Lyubomirsky, Tkach, & DiMatteo, 2006). For example, the association between objective health and SWB appears relatively weak, but perceived health correlates strongly with well-being (Zautra & Hempel, 1984). Some studies also show that physician-rated health reduces the effect of self-rated health on well-being (Okun & George, 1984). Additional studies indicate that when other factors are controlled for, subjective health has little effect on general happiness (Diener, 1994; Lyubomirsky, Tkach, & DiMatteo, 2006). These very inconsistent results might reflect the need for an important consideration about whether people are satisfied with their health and how it affects the relationship between their health and well-being. Good health may exert a positive impact on a person's general well-being, but more important, it may indirectly enhance well-being through satisfaction. Therefore,

Hypothesis 1a: Objective physical health has a direct effect on SWB.

Hypothesis 1b: Objective physical health has an indirect effect on SWB, mediated by satisfaction with health.

Marriage Life and SWB

More than 90% of people worldwide get married (Lyubomirsky King, & Diener, 2005; Myers, 2000). The positive relation between marriage and well-being emerges consistently in studies: Married people are happier than those who are single,

divorced, separated, or widowed (Diener, Suh, Lucas, & Smith, 1999; Evans & Kelley 2004; Graham, Eggers, & Sukhtankar, 2004; Marks & Fleming, 1999). However, the quality of the marriage relationship has an even greater impact on SWB. For example, people in the top quintile of a marriage quality ranking experience very great well-being (Evans & Kelley, 2004). Satisfaction with marriage and family life thus may be the strongest correlate of happiness (Headey, Veenhoven, & Wearing, 1991; Myers, 1992, 2000), though existing research does not address the importance of satisfaction with a spouse. Among those who are married, it may be that a supportive spouse who works hard for the family (e.g., looking after the children, doing housework, cooking, being employed) determines whether married life is satisfactory, but it only affects well-being through satisfaction with the spouse. Being in a relationship that is unsatisfying likely leads to reduced levels of SWB. Therefore,

Hypothesis 2a: Having a supportive spouse does not have a direct effect SWB.

Hypothesis 2b: Having a supportive spouse has an indirect effect on SWB through the mediating effect of satisfaction with the spouse.

Leisure Life and SWB

In most developed countries, pursuing real pleasure and spiritual enjoyment can be especially important for those who can meet their basic needs, such as food; therefore, leisure should significantly contribute to consumers' well-being (Veenhoven, 1996). Many studies demonstrate that engaging in various leisure activities (e.g., sports, socializing, hobbies) contributes to SWB (Csikszentmihalyi & Wong, 1991; Lucas, 2001; Veenhoven, 1996), and conversely, happy people likely enjoy and are satisfied with engaging in leisure activities (Kahana, Schnapp, & Silver, 1995; Lu & Argyle, 1991; Lyubomirsky King, & Diener, 2005; Veenhoven, 1994). This study argues that engaging in various activities during leisure time enhances well-being; however, satisfaction with the use of that leisure time may be even more important for

happiness. As a result,

Hypothesis 3a: Engaging in various leisure activities has a direct effect on SWB.

Hypothesis 3b: Engaging in various leisure activities has an indirect effect on SWB, as mediated by satisfaction with the use of leisure time.

Work Life and SWB

In most modern societies, work is highly valued, important not only as a source of income but also as a means to attain an optimal level of stimulation (OLS) that people find pleasurable (Csikszentmihalyi, 1990; Scitovsky, 1976), create opportunities for meaningful activities, provide social relationships, and achieve a sense of identity (e.g., Feather, 1990; Fryer & Payne, 1986; Lyubomirsky, King, & Diener, 2005; Winefield, Tiggemann, Winefield, & Goldney, 1993). Various studies note that individual unemployment substantially reduces the well-being of those affected (e.g., Clark & Oswald, 1994; Di Tella, MacCulloch, & Oswald, 2001; Stutzer & Frey, 2003), though research seldom centers on how job type or even job pay may affect well-being, nor does it shed much light on how people deal with a job they do not like or find unsatisfactory. For a person who has a job, the job type or even job pay might not relate directly to happiness, but it may affect his or her satisfaction with the job, which should lead to well-being effects. Prior evidence shows that job satisfaction correlates with well-being (for reviews, see Diener, Suh, Lucas, & Smith, 1999; Lyubomirsky King, & Diener, 2005). Thus,

Hypothesis 4a: Job type and job pay do not have a direct effect on SWB.

Hypothesis 4b: Job type and job pay have only an indirect effect on SWB through the mediating role of satisfaction with work.

Household Income and SWB

The relationship between money and happiness usually implies money brings joy to a person's life—a nice house and a fancy car, modern household appliances, private schools for the children, Caribbean vacations, and maybe even higher status and more respect from others (Diener & Biswas-Diener, 2008). Yet many researchers question this seemingly unassailable belief. For example, Diener and colleagues (1999), after a detailed review of the relationship between income and SWB across four lines of research—within-country correlations between income and SWB, changes in SWB among those who experience increases or decreases in income, trends in SWB during periods of national economic growth, and between-country correlations of average SWB and national wealth—find no support for a strong causal path from income to SWB. This finding may indicate that the relationship depends on the person's aspiration and social comparisons (Diener & Biswas-Diener, 2002, 2008). More than 50 years ago, economists also argued that human beings cared mainly about relative rather than absolute income (Duesenberry, 1949; see also Blanchflower & Oswald, 2004; Easterlin, 1995). H.L. Mencken's famous definition similarly posits that "A wealthy man is one who earns \$100 a year more than his wife's sister's husband" (see Diener & Biswas-Diener, 2008). Therefore, actual income might not influence happiness, whereas satisfaction with income does (Mookherjee, 1992). Yet actual income may still be important to happiness because it allows for the achievement of desires (Diener & Biswas-Diener, 2008), especially basic material needs such as food, housing, and health (e.g., Biswas-Diener & Diener, 2001; Diener & Biswas-Diener, 2002; Diener, Sandvik, Seidlitz, & Diener, 1993; Veenhoven, 1991), and offers comparisons with others. Financial satisfaction appears to mediate the relationship between income and global SWB (see Diener & Biswas-Diener, 2002; George, 1992). Therefore, this study posits that satisfaction with income may reflect a person's aspirations and expectations about income, which may affect the relationship between actual income and SWB. In light of this discussion,

Hypothesis 5a: Household income does not have a direct effect on SWB.

Hypothesis 5b: Household income has only an indirect effect on SWB through the mediating role of satisfaction with income.

Housing and SWB

Significant research in anthropology and philosophy indicates that material possessions play an important role in people's lives for both their functional value and their social meaning, as reflections of self-concepts or self-images, which suggests they relate strongly to well-being (Belk, 1988; Cooper, 1974; Duncan, 1968; Leelakulthanit, Day, & Walters, 1991; Levy, 1959, 1964; Sirgy, 1982; Zaltman & Wallendorf, 1979). As one of the most important and valuable material needs for most people, the importance of a house to well-being thus appears self-evident.

However, similar to income, the effects of material possessions on SWB may not be absolute but rather may depend on satisfaction with these possessions. Existing research shows that satisfaction with consumer material possessions (e.g., house or apartment, furniture, automobile, clothing and accessories, savings) has the most significant effect on SWB (Leelakulthanit, Day, & Walters, 1991; Lee, Sirgy, Larsen, & Wright, 2002). That is, though good housing conditions may lead to satisfaction with the house, because it provides a comfortable living circumstance and allows for comparison with others, only the latter actually has a direct effect on well-being.

Hypothesis 6a: Housing does not have a direct effect on SWB.

Hypothesis 6b: Housing has only an indirect effect on SWB through the mediating role of satisfaction with house.

2.4 DATA AND METHODS

2.4.1 Sample and Data

The data employed in this research were drawn from the British Household Panel Survey (BHPS), an annual survey designed to “further understand social and economic change at the individual and household level in Britain, and to identify, model and forecast such changes, their causes and consequences in relation to a range of socio-economic variables” (Taylor et al., 2001: A2-1). The initial selection of households for inclusion in the panel survey relied a two-stage, stratified, systematic method and used the small users Postcode Address File (PAF) for Great Britain as the frame. In the first stage, 250 postcodes were selected from an implicitly stratified listing of all sectors in the PAF using a systematic sampling method. The population of addresses was stratified according to an ordered listing by region and three sociodemographic variables. Interviews sought with all resident household members aged 16 years or older produced a nationally representative sample of more than 5,000 households that represented approximately 10,000 individual interviews.

These BHPS data were collected through face-to-face or telephone interviews and self-completion of the questionnaires. The response rates varied by survey between 85% and 91%. Proxy interviews were attempted for all eligible members of the household who could not be interviewed because of illness or absence. In such cases, a telephone interview was conducted, or a letter was sent to those without a phone number, followed by a visit from an interviewer. This study uses data from the BHPS waves 8, 10, and 12 (published in 2000, 2002, and 2004), which were collected in late 1999–early 2000, late 2001–early 2002, and late 2003–early 2004, respectively. The data analysis relies on Stata 10.

2.4.2 Variables

Dependent Variable: SWB. The measure of subjective well-being used the multi-item GHQ12 (General Health Questionnaire) scale (Goldberg, 1972), a reliable measure of psychological well-being (Argyle 1989). In addition, GHQ12 in the BHPS is the most commonly used individual SWB measure in Great Britain. It assesses both positive and negative affect based on responses to 12 questions (see Appendix 2.1 for the questions and possible responses). Similar to most existing well-being studies in the United Kingdom (e.g., Clark & Oswald, 1994; Shields & Price, 2005), this research uses the inverse of the caseness score form of the GHQ12, which sums the binary values to the responses to each question, resulting in a range of scores from 0 to 12, such that higher numbers indicate increased levels of well-being (Shields & Price, 2005).

Independent Variables. The independent variables used to measure life circumstances in the six life domains are *physical health, spouse being supportive in housework and spouse being supportive financially, housing, job type and job pay, engaging in leisure activities, and household income*. Appendix 2.2 reveals the specific measures for each independent variable. For the four multi-item variables (physical health, spouse supportive in housework and financially, housing, and engaging in leisure activities), principal components analyses all yield single factors with eigenvalues greater than 1. A reliability analysis, which computed Cronbach's alpha coefficients, also yields acceptable reliability estimates (Bollen & Lennox, 1991; Grayson & Ambler, 1999; Oropesa, 1995; Slater & Narver, 1994). Specifically, they range from 0.66 to 0.88, which is particularly acceptable compared with ranges of 0.5 to 0.7 in some prior QOL research (e.g., Atkinson, 1982).

Mediators. In Brief and colleagues' (1993) pioneer work, the mediator of people's subjective health judgments consisted of perceived health; that is, the relationship between physical health and well-being appeared mediated by perceived health.

However, perceptions of health as good or bad do not mean that the person is really happy with his or her health; only being satisfied with the specific condition really enhances well-being. Therefore, the mediators in this study note respondents' satisfaction with the six corresponding life circumstances, namely, *satisfaction with health*, *satisfaction with spouse*, *satisfaction with job*, *satisfaction with the use of leisure time*, *satisfaction with income*, and *satisfaction with house* (for the questions about satisfaction and possible responses, see Appendix 2.3).

Other Control Variables. The control variables include gender, age, age², marriage status, household size, number of children and preschool children, education, vocational qualifications, current economic activities, property ownership, health status, household annual income, and region, which match existing literature on well-being (Ameriks, Caplin, & Leahy, 2002; Oropesa, 1995). For each specific life circumstance, if a control variable correlates highly with the independent variable, it will be excluded from the specific model estimation. Using physical health as an example, health status measures physical health, so it cannot be used again as a control variable in the regression of the effect of health on well-being. Similarly, household annual income cannot be used as a control variable in the regression of the effect of income on well-being, and current economic activities cannot serve as a control variable in the regression of the effect of job status on well-being.

2.4.3 Data Analysis: Assessing Causal Direction

To determine the causal direction by which A causes B, A must precede B (i.e., changes in A precede changes in B) (Headey, Veenhoven, & Wearing, 1991). This requirement represents perhaps the greatest challenge for well-being research, especially studies that use survey data gathered at one-year intervals, because these effects tend to dissipate over time (see Brickman, Coates, & Janoff-Bulman, 1978; Headey, Veenhoven, & Wearing, 1991; Lyubomirsky, Tkach, & DiMatteo, 2006). The effect of current health status should not be a cause of well-being levels in the next

year, especially if the circumstance changed during the period in question. In addition, the measure of SWB in the BHPS consists of consumers' recent positive and negative affect within the same year. Therefore, it may be more reasonable to address the effect of life circumstances on the same year's well-being rather than on the next year's well-being, especially in this research, because the data come from every other year in the BHPS. The causal effects on life circumstances likely will not persist over a period of two years. The causality estimation therefore uses independent, mediating, and dependent variables measured contemporaneously.

2.4.4 Model Specification and Estimation

This study estimates a fixed-effects econometric model of the mediating effect of satisfaction with life circumstances on the relationship between life circumstances in various life domains and well-being. Panel fixed-effects analysis can filter out unobserved individual characteristics, such as personality or disposition, which do not change over time but are systematically correlated with SWB, as well as with factors associated with the well-being function (e.g., engaging in leisure activities, marriage status, satisfaction with life circumstances). These unobserved factors upwardly bias the effects of relevant life circumstances on well-being, whereas the use of a fixed-effects model can remove the bias caused by these factors, improve the coefficient estimates from the cross-sectional analysis, and help establish causal direction (Graham, Eggers, & Sukhtankar, 2004; Stutzer & Frey, 2003). The fixed-effects model includes three sets of predictors: life circumstances in various life domains, satisfaction with corresponding life circumstances, and additional control variables. Therefore, the fixed-effects equation is as follows:

$$W_{it} = \alpha + \beta LC_{it} + \delta M_{it} + \gamma X_{it} + \mu_i + \varepsilon_{it}, \quad (1)$$

where LC_{it} denotes person i 's life circumstance in one life domain (i.e., health status,

job type and job pay, income, housing, having a spouse supportive in housework and supportive financially, or engaging in leisure activities) at time t ; M_{it} is a vector of the mediator, which is satisfaction with the corresponding life circumstance; X_{it} is a vector of control variables, such as age, gender, and education; μ_i is the unobservable individual characteristics that affect life circumstances, such as personality; and ε_{it} is random error.

The life circumstances in six life domains might be interrelated with each other. For example, household with high income may have good housing condition, unmarried people may engage in various leisure activities more than those who are married, and healthy people are more likely to be employed than those who have health problems. Such interrelationships may upwardly bias the effect of each life circumstance on well-being, because it may capture the effect from other interrelated life circumstances on well-being. However, given the relatively low correlation among these life circumstances (with the correlation varies from 0 to 0.41, see table 2.1), the interrelationships will not have substantial influence on our estimations. In addition, we also control the main effects from other interrelated life circumstances. For example, we control household income, among other well-being explanatory variables, when we test the effect of housing on well-being. Similarly, we control marriage status among other explanatory variables in estimating the effect of leisure life on well-being, and control job status in estimating the effect of health on well-being.

Similarly, the interrelationships may also exist among the mediators in six life domains, which may upwardly bias the mediating effect of each mediator on the relationship between corresponding life circumstance and well-being. For example, the mediating effect of satisfaction with income on the relationship between income and well-being maybe upwardly biased by satisfaction with housing. This is because people who are satisfied with their income are more likely to be satisfied with their materials living conditions such as housing, which in turn increases well-being. However, the same as the interrelationships among the life circumstances, the six

mediators are not highly correlated with each other, with the correlations vary from 0.16 to 0.42, and thus will not have significant influence on estimating the mediating effects.

2.5 RESULTS AND DISCUSSION

Table 2.1 presents the means, standard deviations, and pairwise correlations among the independent and dependent variables and mediators. The signs of the correlations all are in the expected direction, and well-being is more strongly correlated with the subjective satisfaction factors than with the corresponding objective circumstantial factors.

The results according to a series of nested panel fixed-effects estimations appear in Table 2.2. Model 0 depicts a regression with only the control variables, all of which move in the expected directions. Compared with those who are self-employed, people who are employed achieve higher well-being levels, whereas those who are unemployed are less happy; as expected, compared with those who are married, people who are no longer married are less happy, whereas being single does not affect happiness. Other controls, such as age, age², income,³ academic qualification, vocational qualification, household size, how many children and number of preschool children, and house ownership, do not have significant effects on well-being. Gender is dropped from the analysis due to its collinearity.

H1a proposes that objective physical health has a direct effect on SWB, and H1b predicts that it has additional an indirect effect on SWB, mediated by satisfaction with health. The results support both hypotheses. Model 1a, which includes health in the regression, shows that the coefficient on health is positive and statistically significant (0.792; $p > |t| = .0000$). That is, holding all other variables constant, the marginal

³ Household annual income is an independent variable in the life domain of income, but in other life domains, it serves as a control variable, in line with existing well-being research.

TABLE 2.1: Main Variable Means, Standard Deviations, and Pairwise Correlations

Variable	Mean	Std.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. SWB	10.07	2.99	-														
2. Physical health	6.47e-10	0.87	.33***	-													
3. Spouse supportive in housework	-1.27e-08	0.93	.02**	.18***	-												
4. Spouse supportive financially	1.64e-08	1.00	.06***	.02***	.03***	-											
5. Engaging in leisure activities (frequency)	-2.44e-10	0.82	.11***	.30***	.34***	.06***	-										
6. Job type (0=self-employed 1=employed)	88%	0.32	1.0e-04	-.02*	.08***	-.05***	.05***	-									
7. Job pay (log of usual gross pay p/m)	6.90	0.83	.05***	.10***	-.07***	.21***	.14***	2.7e-03	-								
8. Household income (log of equivalence)	9.45	0.85	.06***	.14***	.41***	.19***	.26***	.09***	.42***	-							
9. Housing	-1.32e-05	0.76	.09***	.07***	-.01	.05***	.06***	-1.0e-04	.06***	.10***	-						
10. Satisfaction with health	4.94	1.63	.40***	.56***	.09***	.03***	.21***	-1.3e-03	.02***	.08***	.09***	-					
11. Satisfaction with spouse	6.22	1.26	.19***	.02**	-.06***	.26***	-.04***	-7.0e-04	.02***	.03***	.06***	.16***	-				
12. Satisfaction with the use of leisure time	4.93	1.56	.35***	.14***	-.13***	-.01	.09***	1.1e-03	-.04***	.01*	.10***	.35***	.28***	-			
13. Satisfaction with job	4.98	1.47	.32***	.12***	-.01	.09***	-1.1e-03	-.08***	-2.3e-03	.02***	.08***	.31***	.24***	.33***	-		
14. Satisfaction with income	4.54	1.62	.28***	.18***	.06***	.05***	.11***	4.5e-03	.12***	.20***	.17***	.37***	.20***	.37***	.41***	-	
15. Satisfaction with house	5.41	1.47	.20***	.06***	-.09***	.04***	-.04***	-.03**	7.8e-03	-.09***	.25***	.25***	.26***	.37***	.28***	.42***	-

Notes: Significance levels: $.05 < p$; $*.01 < p < .05$; $** .000 < p < .01$; $*** p = .000$.

TABLE 2.2: Fixed-effects estimates for the mediating effect of satisfaction with life circumstances on SWB

	SWB (0)	SWB (1a)	SWB (1b)	SWB (2a)	SWB (2b)	SWB (3a)	SWB (3b)	SWB (4a)	SWB (4b)	SWB (5a)	SWB (5b)	SWB (6a)	SWB (6b)
Health		0.7919***	0.5268***	0.0007	-0.0054								
Spouse supportive in housework				0.0603	0.1242								
Spouse supportive financially													
Engage in leisure activities						0.3344***	0.1811***						
Job type								0.5882	0.6621				
Job pay								0.0862	-0.0216				
Household income										-0.0090	-0.0566		
Housing												0.0851*	0.0564
Satisfaction with health			0.4339***										
Satisfaction with spouse					0.2347***								
Satisfaction with the use of leisure time							0.4386***						
Satisfaction with job									0.5986***				
Satisfaction with income											0.3150***		
Satisfaction with housing													0.1775***
Age	0.0687	0.03	0.0294	0.1066	0.0962	0.0452	0.0515	-0.0018	0.0169	0.0687	0.0738	-0.0526	-0.0452
Age square	-0.0002	8.10e-06	0.0001	-0.0008*	-0.0009*	-0.324e-05	0.374e-05	-1.54e-05	-0.0003	-0.0002	-0.0003	1.21e-05	-1.74e-05
Sex	Dropped												
Health status	1.8680***			2.0688***	2.1317***	1.8557***	1.7628***	2.17275***	1.9518***	1.8680***	1.7687***	1.9309***	1.9169***
Income	-0.0090	-0.0003	-0.0081	-0.2289**	-0.2175**	-0.0134	-0.0074	0.1644*	0.2033**			0.01807	-0.0280
House ownership	0.0153	0.0318	0.0254	-0.2020	-0.1982	0.0273	0.0151	-0.1179	0.6621	0.0153	-0.0403		
Vocational qualification	-0.1234*	-0.1098	-0.1116	-0.1966	-0.2157	-0.0836	-0.0128	0.11065	0.13949	-0.1234*	-0.1115	0.2613	0.2673

Household size	0.0514	0.0415	0.0493	-0.0447	-0.0423	0.0497	0.0464	-0.0284	-0.0092	0.0514	0.0437	-0.0194	-0.0054
Region (In London or out)	-0.3047	-0.3151	-0.3644	-0.5221	-0.597	-0.3077	-0.2464	-0.0303	0.3221	-0.3047	-0.3523	-0.2529	-0.1703
Number of kids in household	-0.0217	-0.023	-0.0386	0.1067	0.1245	-0.0037	0.0110	-0.0353	-0.0573	-0.0217	-0.0239	-0.0007	-0.0099
Number of pre school kids	-0.1563	-0.0682	-0.0830	-0.104	-0.0972	-0.1142	-0.0530	-0.0278	-0.0032	-0.1563	-0.127*	-0.0529	-0.0418
<i>Highest academic qualification</i>													
First degree or above	Reference												
A level or equivalent	0.1231	0.1204	0.1488	0.4110	0.4782	0.0965	-0.0183	-0.2818	-0.2766	0.1231	0.1003	-0.0066	-0.0181
O level or equivalent	-0.0039	-0.1128	-0.0768	0.2499	0.2644	-0.01305	-0.1251	-0.0717	-0.0950	-0.0039	-0.1133	-0.3743	-0.3911
None of these	0.0320	0.0626	0.0268	0.9525	1.0202	0.0615	-0.1884	0.7648	0.8494	0.0320	0.0167	-0.3417	-0.2951
<i>Job status</i>													
Self-employed	Reference												
Employed	0.2401*	0.2584*	0.2455*	0.4039**	0.3502*	0.2396*	0.2198			0.2401*	0.226	0.2521	0.2430
Unemployed	-0.6920***	-0.6392***	-0.6171***	-0.3976	-0.4459	-0.70209*	-0.7243***			-0.6920***	-0.4648**	-0.638**	-0.6814**
Other	-0.0896	0.01807	0.0012	-0.0598	-0.1260	-0.0854	-0.1364			-0.0896	0.0157	0.1123	0.1025
<i>Marital status</i>													
Married	Reference												
Post marriage	-0.5859***	-0.6161***	-0.6328***			-0.6213***	-0.6575***	-0.5511**	-0.5396**	-0.5859**	-0.5186***	-0.6185***	-0.6100***
Single	0.0065	0.00838	-0.0017			-0.0166	0.0843	-0.1232	-0.0046	0.0065	0.01865	0.17665	0.2075
_cons	5.8432*	8.8205**	6.4363***	7.1750	6.1044	6.6176*	4.1445	5.8654	2.9110	5.8432*	5.0729	10.99**	9.7866**
observations	39031	38938	38768	19542	19236	38815	38618	19629	19497	39031	38818	27915	27763
Adjusted R-squared	0.41	0.41	0.43	0.44	0.44	0.41	0.44	0.31	0.36	0.41	0.42	0.39	0.39
F-test (a/b)			736.09***		18.39***		417.08**		249.49***		207.32***		39.37***

Notes: Significance levels: .05 < p; *.01 < p < .05; **.000 < p < .01; ***p = .000.

effect of well-being increases by 0.79 (average increase = 4.74) when health condition increases by 1 unit. This provides baseline support for the hypotheses. The regression of satisfaction with health indicates that health is statistically significant ($p > |t| = .0000$), which suggests that this variable is the primary driver of the mediation. Model 1b presents the full model, including both health and satisfaction with health. In model 1b, adding satisfaction with health causes the coefficient of health to decline significantly to 0.527, though it remains statistically significant ($p > |t| = .0000$). The results therefore partially meet the mediation requirements established by Baron and Kenny (1986). Specifically, the total effect of physical health on well-being is significant in the absence of satisfaction with health (Model 1a). The regression of satisfaction with health yields statistically significant coefficients. Satisfaction with health is statistically significant when physical health remains constant (Model 1b). However, in contrast with the final condition of Baron and Kenny's (1986) mediation outline, health remains significant even when satisfaction with health is added. However, the coefficient value of the effect of health on well-being declines significantly, which suggests the relationship between health and well-being is partially mediated by satisfaction with health (Shrout & Bolger, 2002). Physical health affects SWB directly as well as indirectly through the mediating effect of satisfaction with health.

The tests for H2–H6 are based on the same assessment steps used for H1. For example, H2a proposes that having a supportive spouse does not have a direct effect on well-being, and H2b predicts that it has only an indirect effect on SWB through the mediating role of satisfaction with the spouse. The results show that a supportive spouse (with housework and financially) is insignificant in the absence of satisfaction with the spouse (Model 2a), inconsistent with the first condition of Baron and Kenny's (1986) mediation requirements. In other words, having a supportive spouse does not correlate with well-being, in support of H2a but not H2b. However, Model 2b indicates that satisfaction with the spouse is still significantly associated with well-being

(0.2347; $p > |t| = .0000$; Model 2b), after controlling for having a supportive spouse. Therefore, in a person's married life, having a supportive spouse who shares housework and earns more money is not sufficient, but having mutual respect and deep, heartfelt love might represent a missing variable that leads to being satisfied with the spouse and contributing to a married person's well-being (Diener & Biswas-Diener, 2008).

In the leisure life domain, H3a proposes that engaging in various leisure activities has a direct effect on SWB, but H3b predicts that doing so has an indirect effect, mediated by satisfaction with the use of leisure time. Both are supported by the results. Similar to the health life domain results, the findings indicate three of the four conditions of mediation are met (Baron & Kenny, 1986): (1) Engaging in a various leisure activities during leisure time is statistically significant in the absence of the mediator, that is, satisfaction with the use of leisure time (0.3344; $p > |t| = .0000$ Model 3a), and the marginal effect of well-being increases by 0.334 (average increase = 2) when the frequency of engaging in leisure activities increases by 1 unit; (2) the frequency of engaging in leisure activities relates significantly to satisfaction with the use of leisure time ($p > |t| = .0000$); and (3) satisfaction with leisure relates to well-being when the frequency of engaging in leisure activities remains constant (0.3233; $p > |t| = .0000$; Model 3b). The final condition of Baron and Kenny's (1986) complete mediation outline is not met; the frequency of engaging in various leisure activities remains significant even when satisfaction with the use of leisure time joins the equation. However, the coefficient value of the effect of the frequency of engaging in leisure activities on well-being declines significantly from 0.334 to 0.229, which suggests that the relationship between frequency and well-being is partially mediated by satisfaction with the use of leisure time (Shrout & Bolger, 2002). Thus, H3a and H3b are supported.

In the work life domain, H4a hypothesizes that job type and job pay do not affect well-being directly, whereas H4b posits that job type and job pay affect SWB through the mediating role of satisfaction with work. Similar to the findings in the marriage life domain, job type and job pay are insignificant in the absence of satisfaction with work

(Model 4a), inconsistent with the first mediating condition (Baron and Kenny 1986) and in support of H4a but not H4b. However, satisfaction with work is significant (0.5986; $p > |t| = .0000$; Model 4b) when job type and job pay are constant (Model 2b). Thus, for people who have a job, job type and the amount they earn from the job are not as important as whether they are satisfied with their work in their personal well-being. That is, satisfaction with work is more likely to depend on pleasant cooperation with colleagues, the right amount of challenge from work, and the meaningfulness of the job (Diener & Biswas-Diener, 2008), which lead to well-being.

An insignificant correlation also emerges in the income life domain. Household income is insignificant in the absence of satisfaction with income (Model 5a), inconsistent with the first mediating condition suggested by Baron and Kenny (1986). Therefore, H5a receives support, but H5b must be rejected. This finding is consistent with prior research that finds no statistically significant effect of income on SWB in a representative sample from Britain (Clark & Oswald, 1994). Perhaps wealthier people sacrifice other types of wealth (e.g., too much pressure and stress from work, lack of leisure time) to earn more money. Another explanation for this phenomenon might suggest that even greater desires cancel out the effects of higher income (happiness = what a person has (attainment)/what a person wants (aspiration)) (Diener & Biswas-Diener, 2008). Recent research reveals that average workers earning £20,000–£39,000 covet the lifestyle of the very wealthy, whereas those earning £11,000–£19,000 take the more attainable lifestyles of the former as their aspiration level (Layard, 2005). This tendency might help explain why economic growth in recent decades has not increased well-being; compared with their compatriots of approximately the same age and social class, people's relative income and lifestyle have not increased in proportion. This argument appears supported by the finding that satisfaction with income is highly significant (0.3150; $p > |t| = .0000$; Model 5b) when actual income remains constant. That is, lower aspirations and being satisfied with existing income should lead to happiness.

In addition, the finding that household income does not contribute to well-being does not necessarily conflict with the argument that rich people are happier, because apart from earning higher incomes, they also tend to be healthier, more well-educated, more likely to secure “better” jobs in which they show superior performance, have better social relationships and stronger social support networks, and have fulfilling marriages (see Lyubomirsky, King, & Diener, 2005). These results therefore seem to suggest successful characteristics valued by society other than money contribute to happiness. This point is consistent with survey evidence that indicate none of the superrich listed vacation homes, swimming pools, or designers as major contributors to their happiness (see Diener & Biswas-Diener, 2008).

Hypothesis 6a proposes that housing does not have a direct effect on SWB, and H6b predicts that housing only has an indirect effect on SWB through the mediating role of satisfaction with the house; both are supported by the results. All four conditions in Baron and Kenny’s (1986) guidelines are met: (1) Housing is statistically significant in the absence of satisfaction with the house (0.085 ; $p > |t| = .0000$; Model 6a), which suggests that the marginal effect of well-being increases by 0.085 (average increase = 0.51) when the housing circumstance increases by 1 unit; (2) housing relates to satisfaction with the house ($p > |t| = .0000$), which shows that satisfaction with the house is the primary driver of mediation; (3) satisfaction with the house relates to well-being while housing remains constant (0.178 ; $p > |t| = .0000$; Model 6b); and (4) housing becomes insignificant when satisfaction with the house joins the equation. Therefore, both H6a and H6b are fully supported.

2.6 GENERAL DISCUSSION

Previous research suggests that objective circumstances have weak effects on well-being, and the present research supports that claim. However, the relationship between objective life circumstances and well-being is rather complicated, in that it

varies from life domain to life domain. For example, material life conditions such as housing condition affect well-being completely through the mediating effect of satisfaction with the house, whereas leisure activities and physical health affect well-being directly as well as indirectly through the mediating effects of satisfaction. In addition, household income, a supportive spouse who shares more housework and being employed, and the job type and job pay are not associated with well-being.

Existing research reveals that satisfaction with circumstances relates strongly to SWB (e.g., finances, health, friendships, family relations, leisure, education) (Lyubomirsky, King, & Diener, 2005; Lyubomirsky, Tkach, & DiMatteo, 2006), which is supported by the findings of this study. The results demonstrate that satisfaction with life circumstances in all six life domains have strong effects on well-being when the corresponding objective circumstances remain constant. However, in most life domains, satisfaction with circumstances mediates the relationship between objective circumstances and well-being. This point further proves the argument that different levels of happiness exist among people with different personalities only if sufficient good conditions exist (Lyubomirsky, Tkach, & DiMatteo, 2006).

2.7 CONCLUSION

The pursuit of happiness and well-being is probably the fundamental goal of everyone (Diener 2000), but what produces such well-being? Both practitioner and academic research demonstrates that objective life circumstances alone have weak impacts on well-being. The question of interest pertains to the role of psychological satisfaction factors in a well-being model and the strength of their effects. To answer these questions, this study integrates objective life circumstances and people's satisfaction with these circumstances in a well-being model. The results demonstrate that the relationship between objective life circumstances and SWB is complicated and varies from life domain to life domain. In most life domains, a positive objective

circumstance is a must, though its effect on well-being is mediated primarily by satisfaction with the particular circumstance, and the mediating effect of satisfaction is domain specific and cannot be assumed to be general. This point necessitates a more comprehensive understanding of SWB and has implications for further work in this area, in that the use of overall measures of domain satisfaction might be misleading.

2.7.1 Theoretical Contributions

Existing research suggests that internal cognitive and external circumstantial factors interact to determine well-being (Diener, Suh, Lucas, & Smith, 1999; Lyubomirsky & Dickerhoof, in press). Brief and colleagues (1993) examine the interaction between objective health and people's subjective interpretation of health and find that objective health indirectly affects well-being through the mediating mechanism of how people subjectively interpret it. This research extends their work to six life domains, showing that the interaction between objective circumstances and subjective satisfaction may not exist in all life domains. Although in most life domains (e.g., health, leisure, housing), positive circumstances indirectly affect well-being through the mediating mechanism of satisfaction with the circumstances, in some life domains (e.g., household income, job type and job pay, and having a supportive spouse), positive circumstances do not have any effect on well-being, such that satisfaction with the circumstances alone determines well-being.

Moreover, existing well-being literature agrees that bottom-up and top-down theories should be integrated to gain an understanding of well-being, and well-being may be driven largely by top-down subjective factors; however, this research indicates that the relative importance of top-down theories and subjective satisfaction for understanding well-being is domain specific. In some life domains such as household income, job type and job pay, and having a supportive spouse, satisfaction with the circumstances provide the only sources of well-being, and the objective circumstances

themselves do not contribute to well-being. In some life domains such as housing, subjective satisfaction completely mediates the effect of actual housing on well-being; in leisure and health domains, satisfaction only partially mediates the effect of corresponding objective circumstances on well-being.

Furthermore, existing QOL research reveals the important roles of acquisition, possession, and consumption satisfaction (e.g., Lee, Sirgy, Larsen, & Wright, 2002; Leelakulthanit, Day, & Walters, 1991). The findings show that compared with satisfaction with consumer goods, such as a house, satisfaction with consumer service products, such as leisure activities, has an even more important impact on well-being. Meanwhile, good housing conditions and frequent and varied leisure activities are absolutely necessary to achieve satisfaction and well-being. Unlike housing, whose effect is completely mediated by satisfaction with housing though, leisure activities have direct effects on well-being. Additional research should examine whether this finding might be generalized to other consumer goods and service products.

Finally, the results reveal that satisfaction within all six life domains has a significant positive impact on SWB. This finding differs from prior QOL research based on nonrepresentative, non-national samples. For example, early research conducted in Thailand showed that satisfaction with health, recreation, and work life did not have a significant effects on well-being (Leelakulthanit, Day, & Walters, 1991). Yet in Thailand, most people face significant economic pressures, and the study employed a nonrepresentative sample. Another study conducted in the United States demonstrated that job satisfaction, satisfaction with health, and satisfaction with finances do not have significant impacts on well-being (Lee, Sirgy, Larsen, & Wright, 2002). In this case, the sample respondents were undergraduate students who were generally young, healthy, unmarried, and without family and social responsibilities, which again minimizes the generalizability of the results. Methodologically, the use of a large, nationally representative sample in this research therefore may reveal why these findings differ from those of prior QOL research. The use of more robust,

generalizable samples in this research also may be particularly crucial if the research findings are to be used in public policy debate. In addition, the use of longitudinal panel data allows for the possibility to isolate the effects of unobserved differences between individual respondents and serves as a way to establish the direction of causality (Graham, Eggers, & Sukhtankar, 2004). These points offer greater confidence in the findings and contribution; therefore, the use of longitudinal studies should be a high priority for further well-being research (Lyubomirsky, King, & Diener, 2005).

2.7.2 Practical Implications

Objective life circumstances and people's psychological satisfaction with these circumstances interact differently in six life domains to lead to well-being. Specifically, in the life domains of health, leisure, and housing, improving objective circumstances enhance well-being, but it is truly achieved through the mediating mechanism of people's satisfaction with those circumstances. However, in the life domains of income, marriage life, and job life, objective circumstances do not affect well-being, whereas satisfaction does. Policymakers should use this information to adopt effective measures and increase the well-being of the citizenry.

In particular, policymakers may make use of economic growth to improve housing conditions, public leisure facilities, and health services in order to enhance the well-being of the residents. For example, the government could stabilize property values by managing market values, especially when the market fails to provide adequate housing for all residents (Chua, 1996). According to Chua (1996), welfare housing and low-cost government housing fail because they have ignored market mechanisms and become a constant drain on national wealth. However, state provisions might combine various strategies, such as rent or mortgage subsidies, subsidies of the cost of construction undertaken by private developers, and concessions to developers on the prices of state land in exchange for a specified

proportion of low-cost housing. Similar relevant policies exist in education and health care, but they have not been implemented in the case of housing (Cole & Furbey, 1994). Furthermore, the government could assist house owners with external maintenance of their properties or give them improvement grants for insulation, double-glazed windows, and so forth, which will improve their housing conditions. Although these suggestions are just for illustration purposes, the improvement of housing quality is an unassailable important factor in enhancing the well-being of the residents. In addition, the government also could improve people's leisure life by improving their access to public facilities, such as more local parks, tennis courts, or football fields, which not only have entertainment functionality but also promote local people's exercise, which can improve their health conditions and thereby increase well-being. In terms of improving the health condition of residents, state-funded medical and dental programs might be effective. More hospitals and clinics could be built to provide easier and quicker access to health care and health and medical services; similarly, national health services could cover more effective drugs but that cost more. Although these measures to improve objective circumstances might be helpful, policymakers perhaps should think beyond such traditional objective measures of well-being and incorporate subjective measures, such as how to encourage people to be more satisfied with their circumstances. For example, public policymakers could encourage educational programs that include courses on how to be happy, build people's self-knowledge about their well-being, and how to pursue self-help mechanisms and thus be satisfied with their circumstances (Sheldon & Lyubomirsky, 2006). These courses may borrow psychological benefits from religion or philosophy to help people feel good about themselves and their circumstances (Diener & Biswas-Diener, 2008). Positive psychologists suggest such mind training is effective in enhancing happiness (e.g., Abbe, Tkach, & Lyubomirsky, 2003; Fredrickson et al., 2008); for example, practicing grateful and optimistic thinking appears to create positive and need-satisfying experiences (Lyubomirsky, Dickerhoof, Boehm, & Sheldon, 2008). The Internet could also be used to give people more opportunities to obtain and access relevant knowledge, information, and advice.

This research also suggests a means to enhance the image and reputation of consumption and marketing. Consumer goods and services (e.g., housing, leisure activities) have important effects on well-being, which suggests macromarketers should use marketing to contribute to consumers' satisfaction in relevant life domains and their well-being. Those who hold negative perspectives about consumption thus may be taking an extreme perspective. For example, some authors argue that consumption simply leads to more consumption and greater overall dissatisfaction (McCracken 1988), and evolving consumption patterns, with constant need generation, may leave people feeling strapped for cash and never satisfied (Schor, 1999). Extensive literature on materialism expresses similar ideas (e.g., Belk, 1984; Burroughs & Rindfleisch, 2002; Kasser & Ahuvia, 2002; Kau, Kwon, Tan, & Wirtz, 2000; Richins, 1995; Sirgy, 1998; Wachtel & Blatt, 1990). The findings from this study instead suggest that the effect of consumption on well-being may depend on the specific consumption categories. Furthermore, it appears to depend mainly on how consumers subjectively value and are satisfied with their consumption of products.

Consumers also can help themselves enhance their well-being, which implies they should learn more about and practice self-help mechanisms. In particular, they might relinquish some aspirations and avoid comparisons to appreciate their own objective life circumstances (Blanchflower & Oswald, 2004). If they consider their lives enriched, they may enjoy their lives more. Consumers should realize that positive thinking, rather than just attaining pleasant objective conditions, is more important for increasing well-being.

Finally, by building a comprehensive well-being model, this research can contribute to people's long-term success and economic and social development. Happiness is a vital, useful life resource (Diener & Biswas-Diener, 2008), and happy people function better in nearly every aspect of their lives—work, health, interpersonal relations, and so on (Lyubomirsky, King, & Diener, 2005). Therefore, from a microlevel perspective, a deep understanding of ways to enhance well-being enables people to be

more successful; from a macrolevel perspective, greater well-being across society benefits production and even economic and social development.

2.7.3 Limitations and Further Research

These interesting findings offer just a first step in measuring the mediating effects of satisfaction on the relationship between objective life circumstances and well-being. This research considers six life domains, but the complicated relationship among the constructs suggests that further research should test the model in other life domains, such as spiritual life or education. Such investigations may increase confidence in the research model and provide a more comprehensive understanding of well-being.

A limitation of this study pertains to the testing of some specific assumptions directly. For example, having a supportive spouse may not be sufficient for attaining a happy married life and well-being; instead, these states may require deep love. However, this assumption cannot be tested in this research. In some life domains, it also was not possible to use multiple items that may correlate strongly with satisfaction and well-being. For example, the study considers only job type and job pay, but job satisfaction may be affected even more by factors such as pleasant cooperation with colleagues, the level of challenge in the work, and job meaningfulness (Diener & Biswas-Diener, 2008). Therefore, additional research should use perceptual data and ask personal questions to examine these issues.

Finally, in modern consumer culture, happiness often derives from the marketplace (Ahuvia & Friedman, 1998), and consumer products are important for well-being. For example, QOL research shows that satisfaction with the possession and consumption of consumer goods has a significant impact on well-being (e.g., Lee, Sirgy, Larsen, & Wright, 2002; Leelakulthanit, Day, & Walters, 1991). This research examines two consumer products—housing and consumer leisure activities—that represent two different life domains, and both have significant effects on well-being through

satisfaction, in support of the important role of consumer products for well-being. This important role suggests that research should include other consumer goods (e.g., cars, household electronics, clothes, furniture) and service products (e.g., holidays), which may have even stronger impacts on well-being but are largely ignored in existing QOL research.

APPENDICES TO CHAPTER 2

Appendix 2.1: General Health Questionnaire (GHQ) 12

Have you recently...

1. been able to concentrate on whatever you're doing?
(1 Better than usual; 2 Same as usual; 3 Less than usual; 4 Much less than usual)
2. lost much sleep over worry?
(1 Not at all; 2 No more than usual; 3 Rather more than usual; 4 Much more than usual)
3. felt that you were playing a useful part in things?
(1 More so than usual; 2 Same as usual; 3 Less so; 4 Much less)
4. felt capable of making decisions about things?
(1 More so than usual; 2 Same as usual; 3 Less so than usual; 4 Much less capable)
5. felt constantly under strain?
(1 Not at all; 2 No more than usual; 3 Rather more; 4 Much more)
6. felt you couldn't overcome your difficulties?
(1 Not at all; 2 No more than usual; 3 Rather more; 4 Much more)
7. been able to enjoy your normal day-to-day activities?
(1 More so than usual; 2 Same as usual; 3 Less so than usual; 4 Much less than usual)
8. been able to face up to problems?
(1 More so than usual; 2 Same as usual; 3 Less so than usual; 4 Much less than usual)
9. been feeling unhappy and depressed?
(1 Not at all; 2 No more than usual; 3 Rather more; 4 Much more)
10. been losing confidence in yourself?
(1 Not at all; 2 No more than usual; 3 Rather more; 4 Much more)
11. been thinking of yourself as a worthless person?

(1 Not at all; 2 No more than usual; 3 Rather more; 4 Much more)

12. being feeling reasonably happy; all things considered?

(1 More so than usual; 2 Same as usual; 3 Less so than usual; 4 Much less than usual)

Appendix 2.2: Measures of Objective Circumstances

1. Physical health (Cronbach's alpha = 0.7515)	Three-point health status over previous 12 months, binary variables of listed health problems, health limits daily activities, and count variables of number of visits to doctor, number of visits to outpatients, and hospital inpatient days in the past year.
2. Having a supportive spouse a) Housework (Cronbach's alpha = 0.6326) b) Financially (Cronbach's alpha = 0.8138)	a) Six items: who is responsible for childcare, hours per week on housework, who does the grocery shopping, who does the cooking (couples), who does the cleaning (couples), and who does the washing/ironing (couples). All five-point scales, ranging from 1 (self) to 5 (other). b) Binary variable of spousal employment and three continuous variables, spouse's weekly work hours, spouse's weekly overtime, and spouse's monthly gross pay.
3. Housing (Cronbach's alpha = 0.6202)	Thirteen items: value of property, number of rooms in accommodation, street noise, noise from neighbors, pollution/environmental problems, vandalism or crime, terrace/garden, not enough light, lack of adequate heating, condensation, leaky roof, damp walls, floors, and rot in windows, floors.
4. Engaging in leisure activities (Cronbach's alpha = 0.6837)	Seven items: how often: walk/swim/play sports, watch live sport, go to the cinema, go to theatre/concert, eat out, go out for a drink, and attend evening classes. Items measured on five-point scale ranging from 1 (never/almost never) to 5 (at least once a week).
5. a) Job type b) Job pay	a) Four-point single item (0 = self-employed; 1 = employed) b) Single-item continuous variable (log of usual gross pay per month)
6. Household income	Log of equivalent household income

Appendix 2.3: Satisfaction within Life Domains

How dissatisfied or satisfied are you with.....

1. Your health

(1 Not satisfied at all; 4 Not satisfied/dissatisfied; 7 Completely satisfied)

2. Your husband/wife/partner

(1 Not satisfied at all; 4 Not satisfied/dissatisfied; 7 Completely satisfied)

3. The way you spend your leisure time

(1 Not satisfied at all; 4 Not satisfied/dissatisfied; 7 Completely satisfied)

4. Your job (if in employment)

(1 Not satisfied at all; 4 Not satisfied/dissatisfied; 7 Completely satisfied)

5. The income of your household

(1 Not satisfied at all; 4 Not satisfied/dissatisfied; 7 Completely satisfied)

6. Your house/flat

(1 Not satisfied at all; 4 Not satisfied/dissatisfied; 7 Completely satisfied)

Notes: The reliability and validity of the seven-point “Completely Satisfied” to “Completely Dissatisfied” scale used to measure the responses to all these questions are very high; this scale provides a well-established measure of satisfaction (Andrew & Withey, 1976; Leelakulthanit, Day, & Walters, 1991).

CHAPTER 3

A MECHANISM MODEL OF THE EFFECT OF HEDONIC PRODUCT CONSUMPTION ON WELL-BEING

3.1 INTRODUCTION

Subjective well-being (SWB, or happiness as some researchers refer to it; see Lyubomirsky, King, & Diener, 2005; Lyubomirsky, Sheldon, & Schkade, 2005) benefits individual members as well as society as a whole. Enhancing people's well-being levels therefore constitutes a worthy scientific goal (Lyubomirsky, King, & Diener, 2005; Lyubomirsky, Sheldon, & Schkade, 2005), yet surprisingly, little scientific research considers what people might do to increase their well-being, even as various researchers raise this issue (e.g., Sheldon & Lyubomirsky, 2006; Tkach & Lyubomirsky, 2006). A key reason for this continued neglect may be the difficulty of conducting longitudinal and intervention studies that can examine within-subject effects. Most previous studies adopt cross-sectional approaches and examine between-subject effects (Lyubomirsky, Sheldon, & Schkade, 2005).

In turn, the well-being predictors in existing literature can be categorized as follows: (1) genetically determined, (2) circumstantial, or (3) intentional positive behaviors and cognitions (Lyubomirsky, Sheldon, & Schkade, 2005). Genetic factors, such as genes and personality traits, reportedly account for 40–55% of the variation in between-subject well-being, but they are very difficult, if not impossible, to alter (Costa, McCrae, & Zonderman, 1987; Diener, Suh, Lucas, & Smith, 1999; Lykken & Tellegen, 1996; McCrae & Costa, 1990). Circumstantial factors such as income, marital status, and employment account for only around 8–15% of the variance in

well-being levels (Andrews & Withey, 1976; Argyle, 1999; Diener, Suh, Lucas, & Smith, 1999), mainly due to the phenomenon of “hedonic adaptation,” by which people rapidly adapt to life circumstances by accepting their relatively static and constant features (Brickman, Coates, & Janoff-Bulman, 1978; Frederick & Loewenstein, 1999; Lyubomirsky, Dickerhoof, Boehm, & Sheldon, 2008; Sheldon & Lyubomirsky, 2006). Therefore, positive behaviors and cognitions, which account for approximately 40% of the variance in well-being, offer the best potential route to longitudinal increases in well-being, because people have considerable control over these activities. Moreover, the hedonic adaptation effect is weaker in the case of such behaviors and cognitions, because their episodic and varied nature directly counteracts any adaptation (Fredrickson & Joiner, 2002; Lyubomirsky, Sheldon, & Schkade, 2005; Sheldon & Houser-Marko, 2001; Sheldon & Lyubomirsky, 2006).

However, scientific understanding of how to undertake deliberate activities and actively pursue and attain happiness remains in its infancy (Lyubomirsky & Dickerhoof, in press). Research should expand its assessment of activities to represent these important effects on well-being better (Sheldon & Lyubomirsky, 2006); for example, a significant research gap pertains to how people’s consumption behavior might influence their well-being. In modern consumer culture, happiness often derives from the marketplace (Ahuvia & Friedman, 1998), and consumption, especially of hedonic products, has become a culturally accepted means of seeking happiness and the “good life” (Burroughs & Rindfleisch, 2002). Modern society also imagines consumption as a way to enhance well-being (Diener & Biswas-Diener, 2002; Oropesa, 1995), because by nature, people are motivated to seek emotional arousal, enjoy themselves, and pursue hedonic pleasure experiences (Higgins, 2006; Okada, 2005). Therefore, we focus on the consumption of hedonic products in the present research.

Limited previous research reveals that different types of products (e.g., irregular-use, cyclical, financial) foster well-being for people at different stages in their lives (e.g.,

Oropesa, 1995). Furthermore, experiential purchases (i.e., those made to acquire life experiences) make people happier than material purchases (i.e., made to acquire material possessions) (e.g., Boven, 2005). However, these cross-sectional studies cannot track subsamples longitudinally, which prevents any examination of the dynamics of SWB or consumption and ignores within-subjects effects (Marks & Fleming, 1999). Nor has any research quantified how much consumers need to spend to achieve improved well-being or identified the mechanism by which consumption affects well-being.

On the latter question, some researchers indicate that gratitude may mediate the effects of a gratitude intervention (i.e., “think regularly about things for which you are grateful, such as the generosity of friends”) on a person’s positive affect (Emmons & McCullough, 2003). However, the question of a mediating mechanism has not been well studied, and any identification of potential mediators remains at its earliest stage (Lyubomirsky & Dickerhoof, in press). We posit that an individual consumer’s intentional positive behavior, especially in the marketplace, enhances well-being by constantly improving the quality of relevant life domains and satisfaction with those life domains (e.g., leisure life, social life, health).

Therefore, we empirically investigate two main questions: How much does hedonic consumption affect SWB? And how much is the relationship mediated by people’s satisfaction with their relevant life domains? We offer an overview of our hypotheses pertaining to SWB and consumption behavior toward hedonic products, then test these hypotheses with fixed-effects econometrics models, using data from a large national panel survey. Most consumer research still focuses on consumers’ short-lived emotions, such as the role of emotion in consumption experiences and decisions. In contrast, this research introduces the subject of enduring well-being into the consumer behavior area and thereby supplements existing literature by demonstrating that consumption behavior in the marketplace has a crucial influence on consumers’ enduring well-being.

3.2 RESEARCH HYPOTHESES

In this section, we combine SWB and the characteristics associated with the consumption of hedonic products to develop research hypotheses regarding the relationship between consumption and well-being.

3.2.1 Relationship Between Consumption of Hedonic Products and SWB

Hedonic products are those “whose consumption is primarily characterized by an affective and sensory experience of aesthetic or sensual pleasure, fantasy, and fun” (Dhar & Wertenbroch, 2000, p. 61), which primarily provide experiential enjoyment, consumption, fun, pleasure, and excitement (Okada, 2005). We therefore define hedonic product consumption as a consumer’s usual or regular expenditures⁴ on specific hedonic products or services during a given period (e.g., expenditures on leisure in a month). This definition reflects the commitment and effort (money) the consumer regularly invests in hedonic products and how much of the hedonic experience he or she enjoys regularly (Hirschman & Holbrook, 1982; Holbrook, Chestnut, Oliva, & Greenleaf, 1984; Hopkinson & Pujari, 1999).

In existing literature, SWB stresses a person’s pleasant emotional experience. It is defined as the frequency of experiencing positive affect and the infrequency of experiencing negative affect during a particular period in life (Bradburn 1969; Diener, 1984). Thus, it is a person’s characteristic level of happiness during a particular period of time (Diener, Suh, Lucas, & Smith, 1999; Lyubomirsky, Sheldon, & Schkade, 2005). In contrast to momentary or daily happiness, SWB is more difficult to alter, though still malleable, and it is more meaningful to pursue (Lyubomirsky, Sheldon, & Schkade, 2005).

⁴ We use regular expenditure here, because we believe one-time consumption should be associated more with momentary positive emotions rather than enduring well-being.

Despite minimal empirical examination, some early theories suggest that consumption contributes to well-being. For example, the market-centric perspective posits that consumers enhance their well-being by recognizing their own needs and satisfying them through consumption activity and attaining consumer products (Samli, Sirgy, & Meadow, 1987). Demand theory proposes that consumers seek to maximize their satisfaction through economic activities that consist of the exchange and consumption of goods (Suranyi-Unger, 1981). These theories, as well as the characteristics of hedonic product consumption, indicate that the regular consumption of hedonic products, motivated by the pursuit of hedonic pleasure experiences and happiness in the marketplace and involving continued investments of effort and money, leads to greater well-being.

In addition, bottom-up theories view well-being as the sum of day-to-day pleasurable and unpleasant experiences (Brief, Butcher, George, & Link, 1993; Diener, 1984); that is, a person is happy because he or she recently has had many positive and enjoyable experiences (Feist et al., 1995; Lyubomirsky, Dickerhoof, Boehm, & Sheldon, 2008). This suggests that the regular consumption of hedonic products, which produces small, pleasurable experiences frequently and regularly, will lead to enduring well-being. However, we attempt to quantify the strength of this relationship and suggest that when consumers spend more on hedonic products, their well-being levels increase even more. Thus, we hypothesize:

Hypothesis 1: Consumption of hedonic products relates positively to SWB.

3.2.2 Relationship among Consumption of Hedonic Products, Satisfaction with Relevant Life Domains, and SWB

In H1, we posit that hedonic product consumption plays a critical role in well-being, because people become excited about having pleasure and fun. However, pleasurable experiences do not necessarily relate to the essence of well-being (Shmotkin, 2005).

For example, some people say they are happy, even if they recently have had negative experiences. A person who has missed dinner with friends because he had to work overtime may still feel happy because he completed his work. An author who receives negative comments from reviewers may feel happy because these comments can help her improve her work. As these scenarios indicate, the way in which people interpret their circumstances represents the key determinant of well-being, which is consistent with SWB top-down theories. Such theories assume that people are predisposed to experience and interpret behaviors and cognitions in either positive or negative ways, because SWB is determined by biological factors or personality traits, which influence people's interpretations and perceptions. That is, happy people are happy simply because they have an optimistic outlook and enjoy life's pleasures (Brief, Butcher, George, & Link, 1993; Feist et al., 1995; Lyubomirsky & Dickerhoof, in press). The idea that subjective interpretations provide the dominant predictors of well-being receives support from a wealth of research (see Diener, Suh, Lucas, & Smith, 1999; Lyubomirsky, 2001; Lyubomirsky, King, & Diener, 2005), which reveals that satisfaction with circumstances across various life domains relates strongly to SWB (e.g., finances, health, friendships, family relations, leisure, education) (Lyubomirsky, King & Diener, 2005; Lyubomirsky & Dickerhoof, in press; Lyubomirsky, Tkach, & Dimatteo, 2006).

The preceding arguments suggest that objective consumption behavior offers a weak predictor of well-being, in that it primarily affects well-being by positively changing how people interpret and perceive their consumption behavior-related situations, whereas the way a consumer actively interprets, perceives, and judges these situations as positive and satisfying determines his or her well-being (Lyubomirsky & Dickerhoof, in press). In other words, the effect of the consumption of hedonic products on well-being should be mediated by the consumer's interpretation and perception of the relevant situations.

The integrative model of SWB bottom-up and top-down theories supports such a

mediating mechanism model (Diener, 1984; Diener & Larsen, 1993). In particular, the SWB integrative model suggests that both bottom-up and top-down theories affect people's well-being levels, according to both objective circumstances (e.g., consumption) and temperaments (e.g., positive disposition or personality), or the joint effect of circumstances and the way people interpret them (see Diener, Suh, Lucas, & Smith, 1999; Lyubomirsky, 2001; Lyubomirsky & Dickerhoof, in press). This integrative model may provide the most comprehensive portrayal of well-being (Brief, Butcher, George, & Link, 1993; Diener, Larsen, & Emmons, 1984; Emmons, Diener, & Larsen, 1986; Headey & Wearing, 1989; Lyubomirsky, 2001; Lyubomirsky & Dickerhoof, in press), and using it as a foundation, recent research suggests a mediating construal model that may explain the mechanism by which objective experiences affect well-being. Namely, objective experiences influence well-being through the mediating role of the interpretation and perception of life circumstances and experience (e.g., Emmons & McCullough 2003; Lyubomirsky & Dickerhoof, in press). For example, the effect of objective health status on well-being is mediated by people's subjective interpretation of their health (Brief, Butcher, George, & Link, 1993). Recent happiness intervention research further shows that expressing optimism or gratitude weekly causes people to feel happy, because of the mediating effect of increased positive perceptions about their lives (Lyubomirsky, Dickerhoof, Boehm, & Sheldon, 2008).

Therefore, we argue that this mediating mechanism may apply to how hedonic product consumption behavior affects well-being as well. However, because consumers generally use regular positive consumption behavior to seek "the good life" and improve the quality of relevant life domains associated with consumption (e.g., paying monthly for a membership to a sports club, with the goal of exercising regularly to keep or improve physical health), we consider the potential mediating mechanism of improving the quality of relevant life domains on the effect of consumption on well-being. A life domain is "an aspect of life about which people have feelings" (Andrews & Withey, 1976, p. 11), which has significance for all or

most people and which may be assumed to contribute in some degree to general life satisfaction (e.g., leisure life, social life, health) (Campbell, Converse, & Rodgers, 1976). The quality of a life domain refers to a consumer's satisfaction with that domain (Leelakulthanit, Day, & Walters, 1991). In turn, the effect of hedonic product consumption on well-being should be mediated primarily by satisfaction with the life domains associated with that consumption. The more a consumer spends on hedonic products, the more satisfied he or she is with the relevant life domains, and the higher is his or her well-being. Take leisure consumption as an example: Consumers invest in leisure activities, such as going out for a drink or attending live sports events with friends, not just for the "inherently pleasurable" experiences these activities produce (Calder & Staw, 1975; Holbrook, Chestnut, Oliva, & Greenleaf, 1984) but also to attain their valued goals of improving the quality of their social life and leisure life (e.g., build and keep friendships and social connections). The more they spend on and more frequently they engage in these activities, the better they think they have achieved their valued goals, and the more satisfied they are with their social life and the use of their leisure time, which makes them happier. Similarly, they expend resources on other leisure activities, such as playing team sports or attending evening classes, primarily to attain their valued goals and build enduring personal resources, such as physical health and social connections, which again improves the quality of their social, health, and leisure life. In this case as well, the more they consume, the better they feel about and the more satisfied they are with their social life, health, and the use of leisure time, which all lead to higher levels of well-being. In other words, it is not the consumption that increases well-being but rather how this consumption leads to satisfaction with relevant life domains that leads to increased well-being. Therefore, more consumption (more effort) should lead to increased satisfaction in these life domains, and greater satisfaction should increase well-being. On the basis of the preceding arguments, we hypothesize:

Hypothesis 2: Hedonic product consumption relates positively to well-being through the mediating role of satisfaction with the life domains associated with

that consumption.

3.2.3 Relationship among Frequency of Consumption of Low-Cost Hedonic Products, Satisfaction with Relevant Life Domains, and SWB

In H2, we argued that spending more on hedonic products contributes to well-being is because the effort makes one feel that he or she has improved the quality of the life domains associated with the consumption and be more satisfied with the life domains, which in turn leads to well-being. However, we argue here that the high hedonic product consumption which contributes to satisfaction with life domains associated with consumption and well-being is not likely a result of spending on indulgent or expensive hedonic products but rather of more frequently involving the consumption of low-cost hedonic products. In other words, a bigger quantity of small happiness enhancement effect can have a much longer-term effect on satisfaction and well-being than a small number of massive qualitative ones. So why is this?

First, we know that that the marginal value of positive events generally decreases with their magnitude (Kahneman & Tversky, 1979). This implies that each extra unit of positive events adds less value or pleasure than the preceding one (Linville & Fischer, 1991). For example, the pleasure a consumer derives from spending £100 on leisure is less than 10 times of the pleasure he or she derives from spending £10 on leisure. People possess limited resources for savoring a positive event, which may involve cognitive processes such as cognitively elaborating the event and its implications for one's goals and savoring the emotional high that is related to the event and thus requires time and considerable cognitive resources. The larger the event, the greater a person's "gain-savoring resources" it requires to consume to appreciate the event. However, this "gain-savoring resources" are depleted when used, but are renewable or replenished naturally over time (Linville & Fischer, 1991, p. 10). This implies that there may only be sufficient "gain-savoring resources" to fully appreciate a small event, but not a large one during a certain period (e.g., a day), while the

“gain-savoring resources” will be renewed to fully appreciate another small event maybe the next day, and so on. That is, the positive impact of a large event may be under-appreciated, but that of a small one will be fully appreciated.

Second, physiological mood-enhancing effects, such as serotonin and endorphins, of hedonic experiences are short-lived. Therefore, a consumer might get a slightly bigger endorphin high from a large hedonic experience, but the effect dissipates quickly. However, he or she could derive and maintain a greater cumulative well-being from frequent “small doses” of hedonic experience.

Third, the promise of pleasure in hedonic consumption (e.g., exercise, entertainment, or socialization) forms a powerful and ongoing motivation for consumers to re-experience pleasurable feelings again (Hagtvedt & Patrick, 2009). Therefore, there is an inbuilt reward to undertake it frequently. If a consumer spends £100 on one event, the ongoing need goes unfulfilled for a subsequent period of time. Therefore, increased well-being should be more closely associated with frequently consuming (and thus by consequence, relatively low-cost) hedonic products.

Fourth, it is argued that consumer behavior often serves individualistic needs and/or bolstering a specific type of self-belief such as the dimension of agency (e.g., uniqueness, status, power) or the dimension of communion (e.g., social harmony, affiliation) (Sedikides, Gregg, Cisek, & Hart, 2007). Correlational evidence suggests that the former is related to the purchase of the expensive and/or exclusive high-prestige products that may run the risk of sacrificing necessities or run up consumers’ credit bill (Sedikides et al., 2007). Therefore, ongoing smaller (and thus less expensive) consumption behaviors (e.g., consumption on socializing with friends) are more closely associated with well-being. Indeed, improving the quality of life in such domains as building physical health and strong social connections or achieving personal growth, represents a long-term accumulative process that requires the consumer to make frequent efforts. By their very nature, these benefits do not result from a one-off or even several hedonic consumption events. This line of argument

also derives from evidence that implies hedonistic behaviors or indulgent pleasures are not highly correlated with happiness (Diener & Biswas-Diener, 2008; Shmotkin, 2005). Instead, happy people tend to prefer low-cost, everyday pleasures, such as socializing with friends (Csikszentmihalyi, 1990). On the basis of these arguments, we propose:

Hypothesis 3: Satisfaction with the life domains positively correlates with increased frequency of involvement in consumption of low-cost hedonic products.

3.3 RESEARCH METHOD

3.3.1 Sample and Data

The data for our study come from the British Household Panel Survey (BHPS), an annual survey designed to “further understand social and economic change at the individual and household level in Britain, and to identify, model and forecast such changes, their causes and consequences in relation to a range of socio-economic variables” (Taylor et al., 2001: A2-1). The initial selection of households for inclusion in the panel survey depends on a two-stage, stratified, systematic method. The frame used to select sample units employs the small users Postcode Address File (PAF) for Great Britain. The first stage selects 250 postcodes from an implicitly stratified listing of all sectors on the PAF, using a systematic sampling method. The stratified population of addresses provides an ordered listing by region and three socio-demographic variables. Pursuing interviews with all resident household members aged 16 years or older produced a nationally representative sample of more than 5,000 households, including a total of approximately 10,000 individual interviews.

The data collection for BHPS uses face-to-face interviews, telephone interviews, and self-completed surveys. The response rates vary by survey type, from 85% to 91%.

Proxy interviews were available for all eligible members of the household who could not be interviewed because of illness or absence. In such cases, the proxy interview took place over the telephone or involved a mailed letter for those without a phone number, followed by a visit from an interviewer. The data from BHPS include waves 8, 10, 12, and 14, published in 2000, 2002, 2004, and 2006, respectively, and thus contain more than 25,000 observations.

3.3.2 Variables

Dependent variable: SWB

The BHPS data measure *SWB* according to the ordered ranking of the responses to the GHQ12 item (Goldberg, 1972). This scale consists of a 12-item measure that assesses positive and negative affect on the basis of people's responses to 12 questions (see Appendix 3.1 for details of the questions and the optional responses). These questions consist of statements about both behavioral and psychological functioning and reflect the enduring positive and negative affect traits of *SWB*, such as the average mood level or the frequency of positive and negative affect in a specific period of time (Eid & Diener, 2004). Thus, GHQ12 provides a good way to capture precisely the content and essence of *SWB*. In common with most existing well-being studies in the UK, we use the inverse of the caseness score form of the GHQ12, which sums binary values to the responses from each question, resulting in a score range from 0 to 12, on which higher numbers indicate higher levels of well-being (Clark, 2003; Shields & Price, 2005).

Independent variables

We test our model using a leisure consumption variable, because leisure is a typical hedonic product that consists of “activities that people do simply because they want to, for their own sake, for fun, entertainment, self-improvement or for goals of their own

choosing, but not for material gain” (Argyle, 1992, p. 104). Furthermore, leisure consumption is at its highest rate in the past four decades in the United Kingdom, the setting for this study (Porritt, 2003). Thus, it represents an important consumption behavior in modern life. Consistent with our definition of hedonic product consumption as a consumer’s regular expenditure on specific hedonic products, *leisure consumption* is measured as consumers’ monthly consumption on leisure activities, entertainment, and hobbies. Appendix 3.2 shows the details of the measures of leisure consumption.

The life domains associated with leisure consumption include leisure time, social life, and health. These domain-specific satisfaction scores all use single-item, seven-point Likert-type scales (See Appendix 3.3 for the details of the measures of satisfaction variables). This well-validated measure frequently serves to measure domain satisfaction in existing research (e.g. Lee, Sirgy, Larsen, & Wright, 2002; Leelakulthanit, Day, & Walters, 1991; Lyubomirsky, Tkach, & DiMatteo, 2006; Michalos, 1985).

Frequency of engaging in leisure activities is measured with 6 items: walk/swim/play sport, watch live sport, go to the cinema, go to theatre/concert, go out for a drink, and attend evening classes (see Appendix 3.4 for details). All these items were measured using the 5-point scale ranging from 1 to 5. In the present research, we inverse the scale of each item and recode it as 0 (Never/almost never) to 4 (At least once a week). The frequency of engaging in leisure activities equals the sum of the recoded responses to each related item, for a score range from 0 to 23.

The control variables include gender, age, age², income⁵, marital status, number of children and pre-school children, education, vocational qualification, job status and partner’s job status, household size, property ownership, and region. These variables

⁵ Income is the log equivalent household income, the most commonly used measure at the international level (see Graham, Eggers, & Sukhtankar, 2004).

similarly appear in existing literature on well-being and consumption (Ameriks, Caplin & Leahy, 2002; Oropesa, 1995).

3.3.3 Data Analysis: Assessing Causal Direction

To determine the causal direction by which A causes B, we must show that A precedes B (i.e., changes in A precede changes in B) (Headey, Veenhoven, & Wearing, 1991)—the greatest difficulty for SWB research, especially that which uses survey data gathered at one-year intervals, because the effects tend to dissipate over time (see Brickman, Coates, & Janoff-Bulman, 1978; Headey, Veenhoven, & Wearing, 1991; Lyubomirsky, Tkach, & DiMatteo, 2006; Suh, Diener, & Fujita, 1996). The effect of leisure consumption on well-being might be particularly subject to this dissipation. Unlike the consumption of cars and houses, which can replicate enjoyable experiences and positive affect every time consumers use these products, leisure consumption produces a hedonic experience that can only be consumed immediately. Therefore, leisure consumption only temporarily influences consumers' short-lived affect rather than their enduring well-being. However, regular and habitual leisure consumption may enable consumers to repeat the related hedonic experiences and positive affect, which can lead to well-being, derived from small and frequent positive pleasures (Lyubomirsky, Sheldon, & Schkade, 2005; Lyubomirsky, Dickerhoof, Boehm, & Sheldon, 2008). This consideration clearly influences the BHPS measure of leisure consumption as consumers' average monthly consumption on leisure in a year. Meanwhile, the measure of SWB in BHPS consists of consumers' recent positive and negative affect in the same year, as previously described. We believe it is more reasonable to address the effect of regular leisure consumption on the same year's well-being rather than the next year's well-being, especially in this research, because our data come from every other year in BHPS; it is unlikely that the causal effects for leisure consumption persist over two years. We thus estimate causality with independent, mediating, and dependent variables measured contemporaneously. Stata 10 supports the data analysis.

3.3.4 Model Specification and Estimation

We estimate fixed-effects econometrics models of the mediating effect of satisfaction with the relevant life domains on the relationship between hedonic product consumption and well-being and the effect of frequency of involvement in consumption of low-cost hedonic products on satisfaction with the relevant life domains. Panel fixed-effects analysis enables us to filter out unobserved individual characteristics, such as personality or disposition, which do not change over time but are systematically correlated with SWB, as well as with factors associated with the well-being function (e.g., consumption, satisfaction with life domains). This method should remove the bias caused by these factors and improve the coefficient estimates from the cross-sectional analysis; it also should help establish causal directions (Graham, Eggers, & Sukhtankar, 2004; Stutzer & Frey, 2003). In our fixed-effects model of the mediating effect of satisfaction with the relevant life domains on the effect of hedonic product consumption on well-being, we include three sets of predictors: consumption of hedonic products, satisfaction with relevant life domains, and other control variables. Therefore, the fixed-effects equation is as follows:

$$W_{it} = \alpha + \beta C_{it} + \delta M_{it} + \gamma X_{it} + \mu_i + \varepsilon_{it} \quad (1)$$

where C_{it} denotes person i 's leisure consumption at time t , M_{it} is a vector of mediators, X_{it} is a vector of control variables, μ_i is unobservable individual characteristics that affect consumption (e.g., personality), and ε_{it} is the random error.

Two sets of predictors were included in the fixed-effects equation of the effect of frequency of involvement in consumption of low-cost hedonic products on satisfaction with the relevant life domains:

$$S_{it} = \alpha + \beta F_{it} + \gamma X_{it} + \mu_i + \varepsilon_{it} \quad (2)$$

where F_{it} is person i 's frequency of engaging in leisure activities at time t , X_{it} is a vector of control variables, which include leisure consumption and other control variables.

3.4. RESULTS

In Table 3.1, we present the means, standard deviations, and pairwise correlations among the independent and dependent variables and mediators. The average SWB score is greater than 10, which indicates that most people are happy.⁶ The average leisure consumption score is 3–4 (£20–39 per month). The average frequency of engaging in various leisure activities is 9. The signs of the correlations all are in the expected direction.

TABLE 3.1: Main Variable Means, Standard Deviations, and Pairwise Correlations

Variable	Mean	Std.	1	2	3	4	5	6	7
1. SWB	10.09	3.00	-						
2. Leisure consumption	3.62	3.22	0.09***	-					
3. Frequency of engaging in leisure activities	9.06	4.77	0.11***	0.47***	-				
4. Satisfaction with the use of leisure time	4.92	1.55	0.36***	0.09***	0.10***	-			
5. Satisfaction with health	4.94	1.62	0.41***	0.12***	0.22***	0.37***	-		
6. Satisfaction with social life	4.99	1.50	0.37***	0.13***	0.17***	0.71***	0.41***	-	
7. (Log equivalent household annual) Income	9.50	0.85	0.07***	0.24***	0.23***	0.01***	0.08***	0.05***	-

Note: * $0.01 < p < 0.05$; ** $0.000 < p < 0.01$; *** $p = 0.000$.

The effects of leisure consumption on well-being, according to a series of nested panel fixed-effects estimations, appear in Table 3.2. Model (1) depicts a regression that includes only the control variables, all of which move in the expected directions. Compared with those who are self-employed, people who are employed achieve higher well-being levels, whereas those who are unemployed or claim other job status are less happy. Those with pre-school children are not as happy as others, and people whose spouses are employed are happier than those whose spouses are not currently employed. Age-squared positively affects well-being, and as expected, compared with

⁶ A well-being score of 10 or more is considered high (Clark, 2003).

TABLE 3.2: Fixed-effects Estimates for the Effect of Leisure Consumption on SWB

	SWB	SWB	SWB	Satisfaction with social life	Satisfaction with the use of leisure time	Satisfaction with health	Satisfaction with social life	Satisfaction with the use of leisure time	Satisfaction with health
	(1)	(2)	(4)	(3a)	(3b)	(3c)	(5a)	(5b)	(5c)
Frequency of engaging in leisure activities							0.0427*** (0.0024)	0.0503*** (0.0025)	0.0266*** (0.0026)
Leisure consumption		0.0272*** (0.0064)	0.0026 (0.0061)	0.0350*** (0.0027)	0.0418*** (0.0029)	0.0107*** (0.0029)	0.0287*** (0.0027)	0.0345*** (0.0029)	0.0071* (0.0029)
Satisfaction with social life			0.2822*** (0.0149)						
Satisfaction with the use of leisure time			0.2479*** (0.0141)						
Satisfaction with health			0.4170*** (0.0121)						
Age	0.0398 (0.0487)	0.0401 (0.0489)	0.0516 (0.0468)	-0.0356 (0.0209)	-0.0338 (0.0219)	0.0074 (0.0225)	-0.0404 (0.0208)	-0.0405 (0.0218)	0.0037 (0.0225)
Age square	-0.0004* (0.0002)	-0.0004* (0.0002)	-0.0001 (0.0002)	-0.0001 (0.0001)	-0.0002* (0.0001)	-0.0003*** (0.0001)	0.0000 (0.0001)	-0.0001* (0.0001)	-0.0002** (0.0001)
Sex	(dropped)								
Income	-0.0125 (0.0250)	-0.0215 (0.0252)	-0.0147 (0.024)	-0.0065 (0.0108)	-0.0138 (0.0113)	0.0012 (0.0029)	-0.0060 (0.0107)	-0.0143 (0.0113)	0.0020 (0.0116)
House ownership	-0.0723 (0.0713)	-0.0702 (0.0714)	-0.1117 (0.0681)	0.0781* (0.0306)	0.0345 (0.0322)	0.0203 (0.0330)	0.0803** (0.0304)	0.0361 (0.0320)	0.0174 (0.0330)
Professional qualification	-0.0437 (0.1905)	-0.062 (0.1911)	-0.0034 (0.1824)	-0.0395 (0.0823)	-0.0918 (0.0864)	0.0371 (0.0886)	-0.0130 (0.0822)	-0.0590 (0.0862)	0.0563 (0.0888)
Household size	0.0249 (0.0279)	0.024 (0.028)	0.0322 (0.0267)	0.0103 (0.0120)	-0.0145 (0.0126)	-0.0186 (0.0130)	0.0097 (0.0120)	-0.0145 (0.0126)	-0.0197 (0.0130)
Region (in London or out)	-0.1801 (0.1980)	-0.1914 (0.1979)	-0.1725 (0.1888)	-0.0652 (0.0853)	-0.0778 (0.0894)	0.0288 (0.0918)	-0.0571 (0.0849)	-0.0740 (0.0889)	0.0306 (0.0916)
Spouse job status	0.1627** (0.0552)	0.1714** (0.0553)	0.1511** (0.0527)	0.0414 (0.0237)	0.0349 (0.0249)	0.0315 (0.0256)	0.0437 (0.0236)	0.0350 (0.0248)	0.0330 (0.0255)

Number of kids in household	0.0710 (0.0403)	0.072 (0.0405)	0.0811* (0.0386)	-0.0415* (0.0173)	-0.0202 (0.0183)	0.0316 (0.0187)	-0.0323 (0.0173)	-0.0111 (0.0182)	0.0388* (0.0187)
Number of pre school kids	-0.1852*** (0.0484)	-0.1736*** (0.0485)	-0.054 (0.0463)	-0.2210*** (0.0208)	-0.1979*** (0.0219)	-0.0305 (0.0224)	-0.1862*** (0.0208)	-0.1585*** (0.0219)	-0.0121 (0.0225)
Highest academic qualification	Reference								
First degree or above	Reference								
A level or equivalent	0.1660 (0.1540)	0.1510 (0.1541)	0.0193 (0.1470)	0.2368*** (0.0662)	0.2374** (0.0697)	-0.0208 (0.0715)	0.2235** (0.0659)	0.2229** (0.0693)	-0.0271 (0.0714)
O level or equivalent	0.1540 (0.1897)	0.1549 (0.1901)	0.0293 (0.1810)	0.1465 (0.0815)	0.2536** (0.0858)	0.0349 (0.0880)	0.1408 (0.0811)	0.2524** (0.0853)	0.0402 (0.0879)
None of these	0.2337 (0.3095)	0.2637 (0.3060)	-0.0482 (0.2945)	0.3171* (0.1320)	0.4647** (0.1389)	0.1875 (0.1426)	0.3029* (0.1321)	0.4342** (0.1390)	0.1936 (0.1432)
Job status	Reference								
Self-employed	Reference								
Employed	0.1821* (0.0918)	0.1890* (0.0922)	0.1690 (0.0879)	0.0633 (0.0395)	0.0132 (0.0416)	-0.0045 (0.0426)	0.0639 (0.0393)	0.0114 (0.0414)	-0.0132 (0.0426)
Unemployed	-0.6854*** (0.1242)	-0.6401*** (0.1249)	-0.5561*** (0.1194)	-0.1888*** (0.0536)	0.0215 (0.0564)	-0.0756 (0.0578)	-0.2049*** (0.0533)	0.0021 (0.0561)	-0.0911 (0.0577)
Other	-0.2452* (0.1000)	-0.2083* (0.1006)	-0.1471 (0.0960)	-0.0711 (0.0430)	0.0564 (0.0454)	-0.1432** (0.0465)	-0.0771 (0.0429)	0.0483 (0.0452)	-0.1542** (0.0465)
Marital status	Reference								
Married	Reference								
Post marriage	-0.4252*** (0.0915)	-0.4265*** (0.0919)	-0.4447*** (0.0878)	0.0645 (0.0394)	0.0864* (0.0414)	0.0066 (0.0425)	0.0366 (0.0393)	0.0516 (0.0413)	-0.0119 (0.0425)
Single	0.1225 (0.1094)	0.1194 (0.1095)	0.18826 (0.1044)	-0.0423 (0.0468)	-0.1348** (0.0493)	-0.0375 (0.0506)	-0.0753 (0.0467)	-0.1736*** (0.0491)	-0.0602 (0.0506)
Cons	9.2422*** (1.9888)	9.135*** (1.9946)	3.4078 (1.9003)	6.4759*** (0.8493)	6.6079*** (0.8934)	5.4245*** (0.9173)	6.1399*** (0.8459)	6.2908*** (0.8892)	5.2747*** (0.9168)
Observations	52521	52246	51791	52564	52662	52707	52378	52476	52517
Adjusted R-squared	0.39	0.39	0.45	0.55	0.54	0.55	0.55	0.54	0.55
F-test (2/4)							837.07***		

Note: *0.01 < p < 0.05; **0.000 < p < 0.01; ***p = 0.000.

those who are married, people who are not married any more are less happy, whereas being single does not affect happiness. Other controls, such as academic qualification, household size, and house ownership, do not have significant effects on well-being. Gender is dropped from the analysis due to the collinearity.

In H1, we argue that hedonic product consumption positively affects SWB. The results in Model (2), which includes leisure consumption in the regression, show that the coefficient of leisure consumption is positive and statistically significant. Holding all other variables constant, the total effect of leisure consumption on well-being is 0.0272 ($p > |t| = .0000$). That is, the marginal effect of well-being increases by 0.0272 units (average increase = 0.1632) when leisure consumption increases by 1 unit. Therefore, our empirical results support H1.

Turning to our mediation hypothesis, in which we argue that consumption of hedonic products affects well-being through the mediating role of satisfaction with the life domains associated with the consumption, the results were supportive. In the context of leisure consumption, for which we assume relevant life domains of social life, health, and leisure life, we regress satisfaction on social life, use of leisure time, and health separately; the results of the fixed-effects regressions appear in Models (3a), (3b), and (3c), respectively. As we expected, leisure consumption is statistically significant in all three models, which suggests that the variables are primary drivers of the mediation. When we regress the full mediation model, with both leisure consumption and satisfaction with the relevant life domains, we derive Model (4). Adding satisfaction with the relevant life domains causes the coefficient of leisure consumption to turn non-significant. Our results therefore completely meet the mediation requirements established by Baron and Kenny (1986). Specifically, the total effect of leisure consumption on well-being is significant in the absence of satisfaction with life domains (Model 2). The regressions of satisfaction with the use of leisure time, social life, and health on leisure consumption all yield statistically significant coefficients

(Models 3a–c). Satisfaction with these relevant life domains is statistically significant when we hold leisure consumption constant (Model 4). And leisure consumption turns non-significant when satisfaction with the relevant life domains were added to the equation. This suggests that satisfaction with the use of leisure time, satisfaction with social life, and satisfaction with health completely mediate the relationship between leisure consumption and well-being (Shrout & Bolger, 2002). Thus, hypothesis H2 is supported.

H3 posits that satisfaction with the life domains positively correlates with high frequency of involvement in consumption of low-cost hedonic products. To test this in the context of leisure consumption, we regress satisfaction on social life, use of leisure time, and health respectively on frequency of engaging in various leisure activities, holding leisure consumption controlled. The results of the fixed-effects regression appear in Models (5a), (5b), and (5c) in Table 3.2 and show that the coefficients of frequency of engaging in various leisure activities are highly significant. Specifically, holding leisure consumption constant, the effects of frequency of engaging in various leisure activities on satisfaction with social life, the use of leisure time, and health are 0.0427 ($p > |t| = .0000$), 0.0503 ($p > |t| = .0000$), and 0.0266 ($p > |t| = .0000$) respectively. That is, the marginal effects of satisfaction with social life, use of leisure time, and health increase by 0.0427 (average increase =0.1495), 0.0503 (average increase =0.1761), and 0.0266 (average increase =0.0931) units respectively when the frequency of engaging in low-cost leisure activities increases by 1 unit. Therefore, H3 is supported.

3.5 DISCUSSION

Existing research evidence demonstrates that engaging in various leisure activities (e.g., sports, socializing, hobbies) contributes to SWB (Csikszentmihalyi & Wong, 1991; Dubbert, 2002; Tkach & Lyubomirsky, 2006; Veenhoven, 1996). However, our

findings about people's consumption behavior in the marketplace suggest that spending more on these activities promotes happiness. Perhaps even more important, we find that such spending boosts well-being primarily through the mediating effect of consumers' satisfaction with social life, the use of leisure time, and health. Hedonic motivation (for fun) is not the essence of hedonic product consumption; rather, consumers who invest in these products primarily do so to achieve their valued goals and build enduring personal resources (e.g., physical health, social connections). Meeting these goals and being satisfied with the relevant life domains in turn leads to well-being. This finding is consistent with research on physical activity and well-being, which argues that people exercise less for intrinsic fun and instead to meet valued goals (Chatzisarantis et al., 2003).

In addition, existing research suggests that leisure life, social life, and health provide important determinants of SWB (see Lyubomirsky, Tkach, & DiMatteo, 2006). We further argue that the consumption of leisure activities significantly improves satisfaction with these life domains, which raises consumers' well-being. The small coefficient values of the effects of consumption for satisfaction with relevant life domains also suggest that consumption has relatively poor predictive power for satisfaction in relevant life domains. Consumers' satisfaction in these relevant life domains instead appears primarily determined by their optimistic dispositions (Diener, 1984), though it may also depend on factors such as the quality of their leisure activities, social connections, and health status.

Finally, we find that high hedonic consumption improves satisfaction with the relevant life domains primarily because it enables consumers to engage in consumption of low-cost hedonic products more frequently, while the latter is indeed the key to improve consumers' feeling of improving the quality of the relevant life domains and being satisfied with the life domains, which in turn leads to well-being. This assertion might seem surprising initially, but if we consider that consumers derive their well-being from small, frequent, and regular positive experiences,

whereas strong reactions to intense states (e.g., overstimulating luxury, indulgent products and activities) recede more rapidly (Diener, 1984; Gilbert, Lieberman, Morewedge, & Wilson, 2004), it makes intuitive sense. Indeed, this finding appears to support exploratory research that suggests low-cost indulgences are the secret to a happy life (Hatcher et al., 2008; Ozari, 2007).

3.6 CONCLUSION

If positive activities increase people's well-being, does this relationship hold in the marketplace? In other words, does the consumption of hedonic products increase consumers' well-being? If so, how strong is the relationship, and what is the mechanism responsible for it? To answer these questions, we examine the relationship between hedonic product consumption and well-being in the context of leisure consumption. Our results demonstrate that our consumer variable, consumption of hedonic products, offers a significant predictor of SWB. However, consumption itself has only a weak direct effect on well-being; it enhances well-being primarily by improving consumers' satisfaction with the life domains associated with the consumption.

3.6.1 Research Implications

Researchers suggest that it may be feasible for people to take actions to pursue their own happiness. A handful of happiness intervention experiments consider the effect of positive activities (e.g., practicing optimism and gratitude, acts of kindness) on increasing happiness. However, consumption behavior in the marketplace has been largely ignored. Our finding of a significant effect of hedonic product consumption on SWB thus supplements existing research and provides important evidence that consumption behavior is crucial to a complete picture of activities that can increase well-being. Moreover, consumer behavior researchers mainly have focused on

short-lived emotions, especially how various types of consumption experiences and consumption decisions generate different emotional responses (Havlena & Holbrook, 1986; Luce, Bettman, & Payne, 2001), whereas more recent research considers how consumers may forecast their emotional responses to future purchase (e.g., how will they feel after buying some desired products? Wood & Rettman, 2007). Although consumers clearly approach desired products because they think these products will make them happy, and hedonic products offer affective benefits (Wood & Rettman, 2007), no study has yet examined whether how much they spend on these products might efficiently boost their positive affect and enduring well-being, even though this latter feature may be more meaningful to pursue (Lyubomirsky, Sheldon, & Schkade, 2005).

This research addresses this question by examining the mediating mechanism of satisfaction with the life domain associated with the consumption of hedonic products. It also clarifies that consumption behavior in the marketplace leads to well-being primarily by improving the quality of relevant life domains. Furthermore, our research examines the integrative model of SWB bottom-up and top-down theories, which has received support in the context of other relationships, such as that between health and SWB and between expressing gratitude and well-being. We verify its existence in the relationship between consumption behavior and well-being and demonstrate that well-being depends on both objective consumption behavior and consumers' subjective interpretations and perceptions. Finally, most research on happiness-enhancing activities uses unrepresentative or small student samples (e.g., Lyubomirsky, Dickerhoof, Boehm, & Sheldon, 2008; Seligman, Rashid, & Parks, 2006), leaving open the question of whether the relationships hold for the general population. By employing a large, nationally representative sample, we demonstrate the generalizability of happiness-increasing activities.

The practical implication of our research for consumers is that happiness is affordable. Consumers can achieve happiness by spending their resources on low-cost hedonic

products (e.g., going to the cinema, having a drink with friends, sports, hobbies) that correlate with their intrinsic motivations (e.g., improving physical health, social relations). Meanwhile, thinking optimistically plays a crucial role in happiness. From a managerial perspective, our research reveals that consumers spend on hedonic products primarily to achieve their valued goals, such as improving social connections and health, rather than for the pleasurable experiences. Therefore, marketers should change their messages to consumers to encourage them to believe that their hedonic products can satisfy these alternative consumer expectations. For example, advertisements for evening classes might indicate that attending classes with friends can strengthen their existing friendship and establish new social connections, rather than only emphasizing what students will learn. Advertising messages for big-screen televisions might show people having fun while watching a film or football game together with friends and family, emphasizing group activities rather than product features. Meanwhile, they could also attempt to answer consumers' question, "How much will this consumption contribute to my long-term happiness?" and include the information in their marketing messages to increase consumers' pre-purchase belief in the impact of the consumption of these products on their well-being.

Understanding how SWB emerges has been a slow process, and there is no single set of variables that can explain well-being completely (Csikszentmihalyi, 1999). Thus, as an initial exploration of the predictive ability of consumption behavior, our study includes one consumer variable that we believe could have potentially strong causality for well-being. In contrast, this research emphasizes the causality between the marketing variables or marketplace and SWB and thus centers on well-being research in marketing and consumer behavior. Our study provides a new set of (consumer) well-being determinants; well-being research should continue to involve more marketing and consumer behavior variables.

3.6.2 Research Limitations

As does most research, our study suffers some data limitations. First, consumers pursue different leisure activities for many different purposes or goals; therefore, measuring the relationship between well-being and consumption for each specific leisure activity could provide a better understanding of how each type of leisure activity uniquely influences well-being. Second, leisure consumption is only one consumption category, and the leisure activities we consider are mainly low-cost, frequent activities, such as playing sports, watching live sports, or attending the cinema. Therefore, further work should empirically examine the mediating mechanisms of the effects of consumption on other, more expensive, and less frequently consumed hedonic products, such as durables or holidays. Third, many of our findings are based on assumptions (e.g., we assume that consumers engage in low-cost leisure activities are mainly for their valued goals and building enduring personal resources), which we cannot test directly. Additional research should attempt to use diaries and perceptual data to confirm these assumptions.

APPENDICES TO CHAPTER 3

Appendix 3.1: The General Health Questionnaire (GHQ) 12 Score Questions

Have you recently...

1. been able to concentrate on whatever you're doing?
(1 Better than usual; 2 Same as usual; 3 Less than usual; 4 Much less than usual)
2. lost much sleep over worry?
(1 Not at all; 2 No more than usual; 3 Rather more than usual; 4 Much more than usual)
3. felt that you were playing a useful part in things?
(1 More so than usual; 2 Same as usual; 3 Less so; 4 Much less)
4. felt capable of making decisions about things?
(1 More so than usual; 2 Same as usual; 3 Less so than usual; 4 Much less capable)
5. felt constantly under strain?
(1 Not at all; 2 No more than usual; 3 Rather more; 4 Much more)
6. felt you couldn't overcome your difficulties?
(1 Not at all; 2 No more than usual; 3 Rather more; 4 Much more)
7. been able to enjoy your normal day-to-day activities?
(1 More so than usual; 2 Same as usual; 3 Less so than usual; 4 Much less than usual)
8. been able to face up to problems?
(1 More so than usual; 2 Same as usual; 3 Less so than usual; 4 Much less than usual)
9. been feeling unhappy and depressed?
(1 Not at all; 2 No more than usual; 3 Rather more; 4 Much more)
10. been losing confidence in yourself ?

(1 Not at all; 2 No more than usual; 3 Rather more; 4 Much more)

11. been thinking of yourself as a worthless person?

(1 Not at all; 2 No more than usual; 3 Rather more; 4 Much more)

12. being feeling reasonably happy; all things considered?

(1 More so than usual; 2 Same as usual; 3 Less so than usual; 4 Much less than usual)

Appendix 3.2: Measures of Leisure Consumption

Please look at this card (F6) and tell me about how much you personally spend in an average month on leisure activities, and entertainment and hobbies, other than eating out?

0 = nothing; 1 = under £10; 2 = £10–£19; 3 = £20–£29; 4 = £30–£39; 5 = £40–£49; 6 = £50–£59; 7 = £60–£79; 8 = £80–£99; 9 = £100–£119; 10 = £120–£139; 11 = £140–£159; and 12 = £160 or more.

Appendix 3.3: Measures of Satisfaction with Life Domains

How dissatisfied or satisfied are you with.....

1. Your health

(1 Not satisfied at all; 4 Not satisfied/dissatisfied; 7 Completely satisfied)

2. Your social life

(1 Not satisfied at all; 4 Not satisfied/dissatisfied; 7 Completely satisfied)

3. The way you spend your leisure time

(1 Not satisfied at all; 4 Not satisfied/dissatisfied; 7 Completely satisfied)

Appendix 3.4: Measures of Frequency of Engaging in Leisure Activities

We are interested in the things people do in their leisure time, I'm going to read out a list of some leisure activities. Please look at the card (V4) and tell me how frequently you do each one...

1. Play sport or go walking or swimming

2. Go to watch live sport

3. Go to the cinema

4. Go to a concert, theatre or other live performance

5. Go out for a drink at a pub or club

6. Attend leisure activity groups such as evening classes, keep fit, yoga etc

All responses to the questions use five-point Likert-type scales anchored by "1 At least once a week; 2 At least once a month; 3 Several times a year; 4 Once a year or less; 5 Never/almost never."

CHAPTER 4

THE EFFECTS OF SUBJECTIVE WELL-BEING ON HEDONIC SERVICE VERSUS DURABLE CONSUMPTION: THE CASE OF THE UNITED KINGDOM

4.1 INTRODUCTION

Pursuing the “good life” and well-being (or subjective well-being, SWB; also referred to as happiness by some researchers; see Diener & Seligman, 2004; Lyubomirsky, King, & Diener, 2005; Lyubomirsky, Sheldon, & Schkade, 2005) has become increasingly important for most consumers, especially those whose basic needs usually are well satisfied. Hedonic products, especially services and durables, thus have become extremely critical in modern consumer markets, as reflected in the increased consumption of these two categories of products, by 103 times and 50 times, respectively, over four decades (1967–2007).⁷ Happy consumers actively seek the consumption of products that provide pleasure (Hirschman & Stern, 1999). Therefore, well-being is not just the outcome but also the cause of consumption of hedonic products; it furthermore should have differential impacts on consumption behavior toward different categories of hedonic products. This research therefore investigates the specific relationship between well-being and hedonic consumption on the basis of

⁷ The data come from U.K. national statistics. Hedonic services refer mainly to recreational and sporting services provided by sports stadiums, racecourses, pools, courts, gyms, fairs, parks, dancing sites, and skating arenas. Hedonic durables include audio-visual equipment such as radios, record players, CD and DVD players, personal stereos, televisions, and videocassette recorders.

two main research questions:

1. What is the relationship between well-being and hedonic consumption?
2. How does well-being affect hedonic service consumption and hedonic durable consumption differently, and why?

Existing literature shows that (1) engaging in leisure activities (e.g., sports, socializing, hobbies) contributes significantly to well-being (Csikszentmihalyi & Wong, 1991; Lucas, 2001; Veenhoven, 1996); (2) well-being potentially affects consumers' preferences and enjoyment of leisure products or services (Csikszentmihalyi, 1999; Lu & Argyle 1991; see Lyubomirsky, King, & Diener 2005 for a detailed review); (3) durables with entertainment value are associated with well-being (Scitovsky, 1976, 1986; Hirschman, 1982; Oropesa, 1995); and (4) passion for new electronic products relates positively to SWB (Oropesa, 1995). However, no prior research quantifies the relationship, so we still do not know how strongly these hedonic products associate with consumer well-being.

We seek to answer both questions. In addition, because managers need to understand the complex relationships between well-being and hedonic product consumption, beyond simple bivariate connections, we examine why SWB might lead to hedonic service and durable consumption. In turn, we test whether greater hedonic service and durable consumption result from high well-being consumers engaging in more hedonic services (e.g., leisure activities) and buying more hedonic durables (e.g., hedonic household electronics) rather than spending on indulgent items.

Understanding how well-being affects people's consumption behavior in terms of hedonic products contributes to not only theory, by explaining the differential effect it has on the consumption of different hedonic product categories, but also practice. Which segments should hedonic product provider target? How might the relationship

between well-being and consumption help predict and forecast future demand for hedonic products? How might such knowledge in turn benefit the economy of a country?

The rest of this article is organized as follows: In the subsequent section, we overview the conceptual background. We then draw on positive psychological theories (e.g., broaden-and-build, cognitive tuning) to develop our hypotheses pertaining to SWB and consumption behavior. Using data from a large national panel survey, we test these hypotheses with random-effects ordered probit and fixed-effects econometrics models. Finally, we discuss the theoretical and managerial implications of the findings, as well as some limitations and avenues for further research.

4.2 CONCEPTUAL BACKGROUND

Subjective well-being refers to a person's frequency of experiencing positive affect and the infrequency of experiencing negative affect during a particular period in life (Bradburn, 1969; Diener, 1984). It is therefore a person's characteristic level of happiness during a particular period of time (Diener, Suh, Lucas, & Smith, 1999; Lyubomirsky, Sheldon, & Schkade, 2005). In contrast to short-lived emotions, mood, and affect,⁸ as studied in consumer research, well-being is relatively stable and enduring, which makes it more likely to lead to a longer or more regular and habitual (consumption) behavior.

Hedonic products, including both hedonic services and hedonic durables, are those "whose consumption experience is primarily characterized by an affective and sensory experience of aesthetic or sensual pleasure, fantasy, and fun" (Dhar &

⁸ Although the concepts of mood, affect, and emotion differ, this research investigates enduring happiness or well-being, which represents high average levels of positive affect (Lyubomirsky, King, & Diener 2005). Therefore, we follow existing well-being research and consider mood, affect, and emotion as short-lived experiences that do not need to be strictly distinguished conceptually.

Wertenbroch, 2000, p. 61; Hirschman & Holbrook, 1982).⁹ Hedonic service consumption therefore consists of a consumer's expenditure on specific hedonic services, and leisure consumption involves expenditures on leisure, such as leisure activities, entertainment, and hobbies. Similarly, hedonic durable consumption refers to a consumer's expenditures on hedonic durables, such as hedonic household electronics. The definition of consumption therefore reflects the hedonic experience a consumer enjoys through hedonic products (Hirschman & Holbrook, 1982; Holbrook, Chestnut, Oliva, & Greenleaf, 1984; Hopkinson & Pujari, 1999).

Although no existing research links consumers' SWB to their actual hedonic consumption or suggests the extent to which SWB influences the consumption of hedonic services and hedonic durables, several psychological theories (e.g., broaden-and-build, Fredrickson, 1998, 2001; cognitive tuning, Schwarz, 1990; Schwarz, 2002; Schwarz & Bless, 1991; positive emotions convey specific information, Ortony, Clore, & Collins, 1988; approach-related aspects of positive affect, Watson, 2000; behaviors that follow positive mood, Isen, 2000; for a detailed review, see Lyubomirsky, King, & Diener, 2005) inform this relationship from the perspective of short-lived moods and emotions.

4.3 RESEARCH HYPOTHESES

4.3.1 Effect of SWB on Hedonic Service Consumption

In services research, consumers' short-lived mood states and affect represent central elements for understanding consumption experiences and behavioral intentions (Fox 2001; Mattila & Enz, 2002). The well-established broaden-and-build theory

⁹ In most relevant literature (e.g., hedonic consumption, leisure consumption, intrinsically motivated consumption; see Hirschman & Holbrook, 1982; Holbrook, Chestnut, Oliva, & Greenleaf, 1984; Hopkinson & Pujari, 1999), consumption mainly refers to product usage experience. We use leisure consumption experience, rather than leisure consumption, to represent it herein and differentiate it from leisure consumption (expenditure).

(Fredrickson, 1998, 2001), which builds on other psychological models and experiential evidence, supports this relationship and extends it in scope and breadth (e.g., to include the effect of emotions on service consumption).

Psychological perspectives regarding the functions of affect and emotions suggest that the experience of a positive mood or emotion signifies positive consideration of the general situation, such that the person's goals are being met and resources are adequate (e.g., Cantor et al., 1991; Carver & Scheier, 1998; Clore et al., 2001; Schwarz et al., 2002). Broaden-and-build theory also suggests that in such a benign situation, people are ideally situated to broaden their cognitive attention scope and their momentary thought-action tendencies, which then build various enduring personal resources, such as physical (e.g., physical health), intellectual (e.g., skills, knowledge), social (e.g., friendships, social connectedness), and psychological (e.g., optimism, creativity) (Fredrickson, 1998, 2001; Lyubomirsky, King, & Diener, 2005).

Conceptual analyses of a range of positive emotions and an abundance of empirical evidence provide direct and indirect support for the propositions of broaden-and-build theory (see Fredrickson, 1998, 2001; Fredrickson & Branigan, 2005). In applying this theory to the context of the relationship between positive emotions and hedonic service consumption, we argue that the broadened thoughts and actions resulting from positive emotions—to play, explore, savor, and integrate (Fredrickson, 1998, 2001)—promote people's consumption of hedonic services, which builds their enduring personal resources. For example, the positive emotion of joy creates the urge to play and engage in physical leisure activities such as sports, which build enduring physical health and skills. Joy also might prompt social leisure activities, such as going for a drink, or attending leisure activity groups or team sports with friends, which improve enduring social connections and social-affective skills (Aron et al., 2000; Boulton & Smith, 1992; Ellsworth & Smith, 1988; Frijda, 1986). The positive emotion of interest similarly may affect hedonic service consumption, because the resulting experiences offer novelty and change and require effort and attention, which

create contexts that increase interest and therefore urge people to explore, experience, and become involved. Exploration and involvement should expand people's knowledge and skill base and eventually build lasting intellectual resources (Csikszentmihalyi, 1990; Izard, 1977). Thus, the positive emotion of interest should spark the thought-action tendency of actively consuming, attending, and exploring a variety of leisure activities and thereby build enduring intellectual resources. Other positive emotions such as contentment, love, and pride similarly augment people's hedonic service consumption by creating urges to savor, integrate, share, and envision, which build personal resources in the long term, including friendship, intellectual skills, optimism, and creativity (see Fredrickson, 1998, 2001).

We argue that the effects of short-lived positive affect and emotions on people's hedonic service consumption similarly apply in the links from enduring happiness or well-being to hedonic service consumption. Happy people experience positive emotions most of the time, and they frequently experience thoughts and actions that positive emotions momentarily broaden. In other words, well-being creates an urge to be active in the regular consumption of pleasant and rewarding hedonic services, such as physical, social, and other leisure activities, which build their enduring personal resources. Compared with low well-being consumers then, high well-being consumers should spend more on hedonic services.

Hypothesize 1a: Subjective well-being is positively associated with hedonic service consumption.

However, positive emotions do not necessarily urge people to spend on indulgent hedonic services, because positive emotions prompt actions and behaviors that build enduring personal resources and sustain favorable psychological environments (e.g., physical health, social connectedness, optimism). They do not cause people to behave in a hedonistic manner or indulge in mere pleasure, such as going to expensive restaurants (Shmotkin, 2005). Therefore, high well-being consumers might engage

more in low-cost leisure activities that will build their enduring personal resources rather than fewer, highly indulgent, expensive hedonic activities, which are not consistent with building enduring personal resources according to broaden-and-build theory. Existing research also indicates that happiness is more closely associated with inexpensive leisure activities, such as socializing with friends (Csikszentmihalyi, 1990; Gershuny & Halpin, 1996; Graef, McManama, & Csikszentmihalyi, 1981). Therefore, high well-being consumers' high hedonic service consumption likely does not result from engaging in indulgent or expensive leisure activities but rather from being more active and engaging more frequently in a variety of physical, social, and other leisure activities. Existing research evidence also reveals that chronically happy people report engaging in a greater frequency of leisure activities (e.g., Mishra, 1992; Veenhoven, 1994; Lyubomirsky, King, & Diener, 2005). Therefore,

Hypothesize 1b: Subjective well-being is positively associated with a high frequency of involvement in low-cost hedonic services.

4.3.2 Effect of SWB on Hedonic Durable Consumption

We have posited that SWB positively affects hedonic service consumption, but we realize this effect may not hold for hedonic durable consumption, because of the different characteristics of the consumption experiences people derive from durables. As we posited in H1a, positive emotions create the urge to seek variety and involvement, yet consumption experiences that derive from hedonic durables, such as watching movies or listening to music, are much less variable, and they are characterized by idleness instead of active involvement and effort. Existing research suggests that experiences characterized by relaxation and idleness do not relate strongly to well-being (Tkach & Lyubomirsky, 2006). In other words, a new television might be great for a couple of weeks, but people get bored of them quickly, which means these items do not have substantial association with well-being over time. Consumers realize the short-term effects because of their previous experiences,

so when they have high well-being, they do not necessarily spend on these products and instead choose to spend more on active experiences, which provide variety and long-term and more predictable rewards.

Moreover, hedonic products tend to be perceived as discretionary in nature, with hard-to-quantify benefits (Okada, 2005). Spending too much money on such products can invoke a sense of guilt (Kivetz & Simonson, 2002a, b; Strahilevitz & Myers, 1998), so people may avoid spending too much money on them, unless they want to use them for some extrinsically motivated purposes, such as social comparison or material symbols, which correlate negatively with well-being (e.g., Christopher et al., 2004; Kasser & Ryan, 2001; Isen, 2001; Richins & Dawson, 1992; Tatzel, 2003; Wong, 1997). High well-being consumers may prefer low-cost hedonic products, rather than indulgent or expensive ones, only if they serve to build their enduring personal resources. This phenomenon especially applies to hedonic durables (e.g., televisions, CD players), which can be possessed and consumed for a long time. A low well-being consumer owns more indulgent hedonic durables for extrinsically motivated purposes, such as material symbols; high well-being consumers should prefer low-cost durables for their intrinsically motivated purposes, such as intrinsic fun, regulating emotions, and compensating for stresses, which also build psychological health and optimism over time. Overall, compared with low well-being consumers, high well-being consumers should not spend more on these types of products.

For hedonic service consumption, a low well-being consumer might visit a fancy gym or restaurant for social comparison purposes, yet because this consumption experience tends to be accomplished alone or with a few others and quickly, this consumer is less likely to choose this outcome for social comparison. Therefore, high well-being consumers, who engage in these activities more frequently, may spend more on these experiences.

Finally, unlike hedonic service consumption, which may involve impulse purchases, hedonic durable consumption tends to be planned in advance. In other words, the effect of well-being on hedonic durable consumption should be more front-loaded: When a consumer is high in well-being and thinks about buying a television, the actual consumption may happen in the coming year. Therefore, well-being does not necessarily affect hedonic durable consumption immediately. The preceding argument leads us to propose:

Hypothesis 2a: Subjective well-being is not associated with hedonic durable consumption.

Positive affective states signify that the person is in a benign situation, without threats to his or her goals (see Friedman & Forster, 2000; Schwarz, 1990, 2002). The cognitive tuning model also suggests that people think and act in ways that meet their intrinsic feelings, encouraging them to take risks and explore novel alternatives (Fiedler, 1988; Schwarz & Bless, 1991). Existing research suggests that the consumption behavior of happy consumers can be more intrinsically motivated, making them innovative, novelty-seeking, and variety-seeking among safe, enjoyable consumer products (Hirschman & Stern, 1999; Kahn & Isen, 1993), such as hedonic household electronics that embrace technology, considerable product innovation, and variation (Wang, Dou, & Zhou, 2008). As we argued in H1, we believe that the consequences of this short-lived affect on consumption behavior apply to their overall well-being. Well-being research confirms that high well-being consumers are more interested in the newest electronics (Oropesa, 1995). Therefore, we argue that high well-being consumers are more active in their hedonic durable consumption; however, they may prefer low-cost durables to achieve their intrinsically motivated purposes and build their lasting personal resources. In other words, compared with low well-being consumers, they will not spend more money on these products, but they will replace their existing hedonic durables more frequently with updated products.

Hypothesis 2b: Subjective well-being is associated with a greater frequency of purchasing low-cost hedonic durables.

4.4. RESEARCH METHOD

4.4.1 Measures

Sample and data. The data for this study come from the British Household Panel Survey (BHPS), an annual survey designed to “further understand social and economic change at the individual and household level in Britain, and to identify, model and forecast such changes, their causes and consequences in relation to a range of socio-economic variables” (Taylor et al., 2001: A2-1). The initial selection of households to include depends on a two-stage, stratified, systematic method. The frame used to select the sample units employs the small users’ Postcode Address File (PAF) for Great Britain. The first stage selects 250 postcodes from an implicitly stratified listing of all sectors on the PAF, according to a systematic sampling method. The stratified population of addresses provides an ordered listing by region and three sociodemographic variables. Efforts to interview all resident household members aged 16 years or older has produced a nationally representative sample of more than 5,000 households, including approximately 10,000 individual interviews.

The data collection for BHPS relies on face-to-face interviews, telephone interviews, and self-completed surveys. The response rates vary by survey type, from 85% to 91%. Proxy interviews are available for all eligible members of the household who could not be interviewed because of illness or absence. In such cases, the proxy interview took place over the telephone or involved a mailed letter for those without a phone number, followed by a visit from an interviewer. The present study uses data from the BHPS waves 10–15, collected from late 2001 to early 2006. The observations for these six waves number more than 65,000.

Independent variable. The BHPS data measure SWB according to ordered rankings of responses to the GHQ12 item (Goldberg, 1972). This scale comprises 12 items that reflect the enduring positive and negative affect traits of SWB, including average mood level or the frequency of positive and negative affect in a specific period of time (Eid & Diener, 2004) (see Appendix 4.1 for details of the questions and the optional responses). Thus, GHQ12 can capture precisely the content and essence of SWB. Similar to most existing well-being studies in the United Kingdom, we use the inverse of the caseness score form of the GHQ12, which sums binary values to the responses from each question and results in a score range from 0 to 12, such that higher numbers indicate higher levels of well-being (Clark, 2003; Shields & Price, 2005).

Dependent variables. We empirically examine leisure consumption and hedonic household electronics consumption. These two consumption categories are representative of hedonic service consumption and hedonic durable consumption, respectively, and often appear in relevant research (e.g., Csikszentmihalyi, 1990; Lee, Sirgy, Larsen, & Wright, 2002; Leelakulthanit, Day, & Walters, 1991; Oropesa, 1995; Veenhoven, 1994). They also play significant roles in modern life.

Leisure consumption refers to the consumption of leisure activities, entertainment, and hobbies; the consumption of dining out experiences; and aggregate leisure consumption. See the details of the measures of leisure consumption variables in Appendix 4.2.

The data pertaining to the frequency of engaging in leisure activities come only from BHPS waves 10, 12, and 14. We measure consumers' *frequency of engaging in leisure activities* as their frequency of engaging in leisure activities, entertainment, and hobbies; their frequency of eating out; and the frequency of their aggregate leisure. The details of the measures of the frequency variables are shown in Appendix 4.3.

Hedonic household electronics consumption refers to six hedonic household

electronic components: CD players, color televisions, VCRs, home computers, satellite dishes, and cable televisions. The BHPS questions ask how much consumers spent on each of these hedonic durables in the past year. The final measure is the sum of consumers' actual expenditures on these six hedonic household electronic products during the previous year.

The questions regarding the *frequency of purchase of new hedonic household electronics* inquires, "Was [the product] (e.g., colour television) bought in the last year since September 1st (e.g., 2001)?" We use the sum of the six types of new hedonic household electronic products that a consumer bought in the past year to determine whether a happy consumer buys more hedonic household electronics.

Control variables. The control variables include gender, age, age², income,¹⁰ marital status, number of children and preschool children, education, vocational qualification, job status and partner's job status, household size, property ownership, and region. These variables similarly appear in existing literature on consumption and well-being (Ameriks, Caplin, & Leahy, 2002; Oropesa, 1995). In support of previous research, we show that most of these variables affect people's consumption of leisure activities and hedonic household electronics. For example, most demographic and economic variables have statistically significant effects on leisure consumption, such that earning more income, being in good health, owning property, having vocational qualifications, and living in London positively affect leisure consumption, whereas household size, age, and age squared negatively affect it. Compared with those who are well-educated, consumers with less education spend less on leisure; compared with those who are self-employed, people who are employed, unemployed, or claim other job status spend much less on leisure; people who are married do not spend as much as those who are single or are not married any more; those with preschool children do not spend as much on leisure activities as others; and women spend less

¹⁰ Income is the log-equivalent household income, the most commonly used measure at the international level (see Graham, Eggers, & Sukhtankar, 2004).

on leisure than do men. Other controls, such as partners' job status and number of children, have no significant effects on leisure consumption.

Most demographic and economic variables also influence people's hedonic household electronics consumption. For example, young consumers, those with more income, consumers whose partners have a job, and people with more children tend to spend more on hedonic electronics. Meanwhile, consumers who are less educated, have more preschool children, live in a big household, or are divorced spend less on hedonic household electronics. Therefore, we follow existing literature and control for all of these variables in our study. Table 4.1 summarizes the descriptive statistics of the control variables we use in this research.

Table 4.1: **Descriptive statistics of the control variables**

Variable	Observations	Mean/Percentage	Std. Dev.	Min	Max
Age (age of respondent at time of survey in years)	98721	45.614	18.571	15	101
Age ² (age in years squared)	98721	2425.525	1842.02	225	10201
Health status (dummy 1=good)	98662	89.8%		0	1
Sex (dummy, 1= male)	98719	45.9%		0	1
Property ownership rented (dummy 1= owned 2= rented)	95814	74.4%		0	1
Has vocational qualifications (dummy 1= yes)	92393	35.2%		0	1
Household size (number of people in the household)	98723	2.866	1.403	1	14
Region (in London or out, dummy 1= live in London)	97672	4.9%		0	1
Whether spouse/partner employed now (dummy 1=yes)	98723	42.2%		0	1
Number of kids in household	98683	0.606	0.983	0	10
Number of preschool kids in household	98683	0.134	0.401	0	4
<i>Highest academic qualification</i>					
First degree or above		(Reference group)			
A level or equivalent	92529	25.5%	0.436	0	1
O level or equivalent	92529	30.1%	0.459	0	1
None of these	92529	31.7%	0.465	0	1
<i>Job status</i>					
Self-employed		(Reference group)			
Employed	98664	50.3%	0.500	0	1
Unemployed	98664	3.4%	0.181	0	1
Other (retired, maternity leave, full time student, disabled, Other)	98664	39.5%	0.489	0	1
<i>Marital status</i>					
Married		(Reference group)			
Post marriage (widowed, divorced, separated)	98468	17.9%	0.383	0	1
Single (never married)	98468	29.1%	0.454	0	1

4.4.2 Data Analysis: Assessing Causal Direction

To determine the causal direction by which A causes B, we must show that A precedes B (i.e., changes in A precede changes in B) (Headey, Veenhoven, & Wearing, 1991)—which constitutes the greatest challenge for SWB research, especially research that uses survey data gathered over one-year intervals, because these effects tend to dissipate over time (see Brickman, Coates, & Janoff-Bulman, 1978; Headey, Veenhoven, & Wearing, 1991; Lyubomirsky, Tkach, & DiMatteo, 2006; Suh, Diener, & Fujita, 1996). In other words, it is unlikely that the causal effects of well-being require a year to emerge. Fortunately, this consideration influences the BHPS measures of regular and habitual consumption behavior. For example, the BHPS measure of leisure consumption uses consumers' average monthly consumption on leisure in a year, the measure of frequencies entails how regularly they participate in the activities in a year, and the measure of household electronics consumption behavior equals consumers' yearly consumption behavior. The SWB measure also consists of consumers' positive and negative affect in the same year, as previously described. We believe it is more reasonable to address the effect of well-being on the same year's regular and habitual consumption behavior than on the next year's. Therefore, we estimate causality using independent and dependent variables measured contemporaneously. Stata 10 supports the data analysis.

4.4.3 Model Specification and Estimation

Because the dependent variables are different in nature, we need separate statistical models to fit the different consumption categories. We first model the effect of well-being on leisure consumption. Because of its ordinal nature, we follow existing research and directly model leisure consumption rather than adopting continuous or fit linear models. The statistical model is a random-effects ordered probit model, with the following ordered probit equation:

$$\Pr (C_{it} = J | X_{it}, SWB_{it}, \mu_i) = 1 - \Phi(\mu_J - \beta X_{it} - \gamma SWB_{it} - \mu_i), \quad (1)$$

where \Pr denotes the probability of C_{it} , which is J given observations of X_{it} , SWB_{it} , and μ_i ; $\Phi(\cdot)$ is the distribution function of $(\mu_J - \beta X_{it} - \gamma SWB_{it} - \mu_i)$; μ_J is a set of J cutpoints for consumption; SWB_{it} is an individual i 's SWB at time t ; X_{it} is a vector of control variables; and μ_i refers to the unobservable individual characteristics that affect consumption and well-being (e.g., personality).

We also use an ordered probit model for the effects of well-being on the frequencies of engaging in various leisure activities, which also are ordinal in nature:

$$\Pr (F_{it} = J | X_{it}, SWB_{it}, \mu_i) = 1 - \Phi(\mu_J - \beta X_{it} - \gamma SWB_{it} - \mu_i), \quad (2)$$

where \Pr denotes the probability of F_{it} , which is J given observations of X_{it} , SWB_{it} , and μ_i , as previously defined.

However, both hedonic household electronic consumption and frequency of buying hedonic household electronics are continuous, so panel fixed-effects analyses are the most appropriate approach. The fixed-effects equations are:

$$C_{it} = \alpha + \beta X_{it} + \gamma SWB_{it} + \mu_i + \varepsilon_{it}, \text{ and} \quad (3)$$

$$B_{it} = \alpha + \beta X_{it} + \gamma SWB_{it} + \mu_i + \varepsilon_{it}, \quad (4)$$

where C_{it} and B_{it} are an individual i 's hedonic household electronics consumption and frequency of buying hedonic household electronics, respectively, at time t .

4.5 RESULTS

4.5.1 Effect of Well-Being on Leisure Consumption

In H1a, we posit that SWB is positively associated with leisure consumption, and as expected, the series of nested ordered probit estimations shows that SWB has highly significant effects on leisure consumption (see Model 1a–c, Table 4.2). Compared with well-being at the reference level 0, well-being at levels greater than 3 result in highly significant positive effects ($p > |z| < .01$), controlling for demographic and economic variables. However, significant β coefficients in the ordered probit estimation indicate only that the probability of a consumption category reaching a level greater than or equal to any given level increases. Therefore, by predicting the probability of the existence of individuals with different levels of well-being in each leisure consumption category, we can estimate the marginal effects of well-being on leisure consumption, which indicate the change of the probability of belonging to a consumption category when SWB increases by one level. For simplicity, we estimate the summed marginal effects for each consumption category when SWB increases from 1 to 12, as we show in Figure 4.1. Compared with well-being at level 0, when well-being increases from 1 to 12, the probabilities that a person appears in the low consumption categories decrease, whereas the probabilities of appearing in the high consumption categories increase. However, the relationship is not linear.

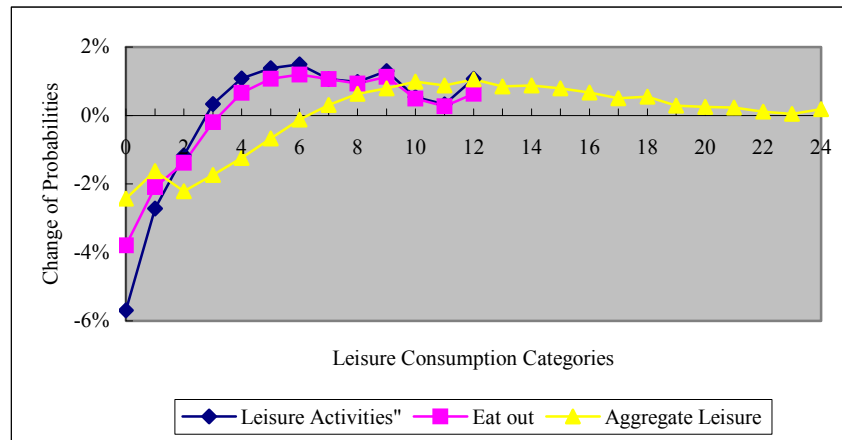
Table 4.2: Effects of SWB on leisure consumption

Consumption	Leisure Activities, Entertainment, and Hobbies						Frequency of Leisure Activities, Entertainment, and Hobbies					
	(1a)		(1b)		(1c)		(1d)		(1e)		(1f)	
SWB	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
Wellbeing_0	(Reference Category)											
Wellbeing_1	0.035	0.041	0.039	0.041	0.038	0.040	0.052	0.057	0.083	0.060	0.067	0.057
Wellbeing_2	0.078	0.040	0.060	0.040	0.081*	0.039	0.108	0.055	0.015	0.058	0.097	0.054
Wellbeing_3	0.103**	0.039	0.105**	0.039	0.125***	0.038	0.070	0.054	0.072	0.057	0.072	0.054
Wellbeing_4	0.119**	0.038	0.125**	0.037	0.147***	0.037	0.101	0.052	0.039	0.055	0.095	0.051
Wellbeing_5	0.123**	0.036	0.156***	0.036	0.161***	0.035	0.148**	0.050	0.177***	0.053	0.169**	0.050
Wellbeing_6	0.138***	0.035	0.147***	0.035	0.165***	0.034	0.103*	0.048	0.182**	0.051	0.130**	0.048
Wellbeing_7	0.195***	0.034	0.184***	0.033	0.224***	0.033	0.137**	0.047	0.084	0.049	0.134**	0.046
Wellbeing_8	0.197***	0.033	0.184***	0.032	0.227***	0.032	0.103*	0.045	0.169***	0.047	0.122**	0.044
Wellbeing_9	0.165***	0.032	0.187***	0.031	0.205***	0.031	0.167***	0.043	0.153**	0.046	0.176***	0.043
Wellbeing_10	0.188***	0.031	0.179***	0.030	0.217***	0.030	0.169***	0.042	0.220***	0.044	0.193***	0.041
Wellbeing_11	0.213***	0.030	0.197***	0.029	0.241***	0.029	0.208***	0.040	0.202***	0.042	0.228***	0.040
Wellbeing_12	0.242***	0.029	0.190***	0.028	0.253***	0.028	0.250***	0.039	0.217***	0.041	0.274***	0.038
Pseudo-R-squared	0.0642		0.0653		0.0664		0.0984		0.1058		0.0968	

Notes: Control variables (not shown) are gender, age, age², marital status, household size, number of children and preschool children, education, vocational qualification, job status, partner's job status, property ownership, health status, household annual income, and region.

*0.01 < p < 0.05; **0.000 < p < 0.01; ***p = 0.000.

Figure 4.1: **Change in the probabilities of each consumption category when SWB increases from 1 to 12**

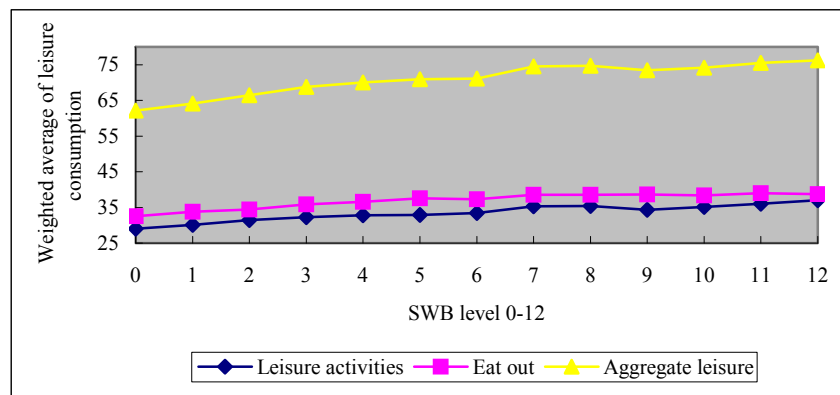


If we use the consumption of leisure activities, entertainment, and hobbies as an example, compared with well-being at the reference level, when it increases from level 1 to 12, consumers likely do not spend less than the category 3 level (£20–£29 per month) on leisure activities, entertainment, and hobbies (e.g., consumers are 5.69% less likely to spend nothing per month); however, they are 1.5% more likely to spend at the category 6 level (£50–£59 per month), though they do not tend to spend much more than that. Therefore, they are only 0.32% more likely to spend at the category 11 level (£140–£159 per month), much less than the likelihood that they spend £50–£59 per month.

The estimates for the effects of SWB on eating out and aggregate leisure consumption reveal similar results (see Figure 4.1). Compared with well-being at level 0, consumers are 3.8% less likely to spend nothing on eating out per month as their well-being increases, 1.2% more likely to spend £50–£59 per month, and 0.27% more likely to spend £140–£159 per month. Similarly, compared with well-being at level 0, increases in well-being make consumers 2.43% less likely to spend nothing on aggregate leisure, 1.06% more likely to spend around £127 per month, and 0.19% more likely to spend more than £320 per month.

The positive effect of well-being on leisure consumption receives further support from the weighted average leisure consumption at each SWB level (see Figure 4.2), which shows that when well-being increases from 0 to 12, average consumption increases by 27.5% on leisure activities, entertainment, and hobbies, 18.9% on eating out, and 22.8% on aggregate leisure. Our empirical results thus suggest that SWB has a highly positive impact on leisure consumption, in support of H1a.

Figure 4.2: **Weighted average leisure consumption at each SWB level**



A series of nested ordered probit estimations also shows that compared with well-being at reference level 0, well-being at levels greater than 5 have highly significant positive effects ($p > |z| < .05$, Model 1d–f, Table 4.2) on the frequencies of engaging in leisure activities, entertainment, and hobbies, eating out, and engaging in aggregate leisure, when we control for the consumption, demographic, and economic variables.¹¹ We also estimated the marginal effects and sum of the marginal effects for each frequency score when SWB increases from 1 to 12. The results in Figure 4.3 indicate that when well-being increases from level 1 to 12, consumers are more likely to engage in various leisure activities more frequently. For example, compared with well-being at the reference level 0, consumers are 5.16% less likely to eat out only several times a year as well-being increases, but they are 5.77% more likely to eat out

¹¹ In Model 1e, the effect of well-being at level 7 on consumption of eating out is not significant; we assume it is an estimation bias.

at least once a week, with the consumption of eating out controlled. Because the frequencies of engaging in leisure activities, entertainment, and hobbies and

Figure 4.3: **Change of the probabilities of each frequency level of leisure activities when SWB increases from 1 to 12**

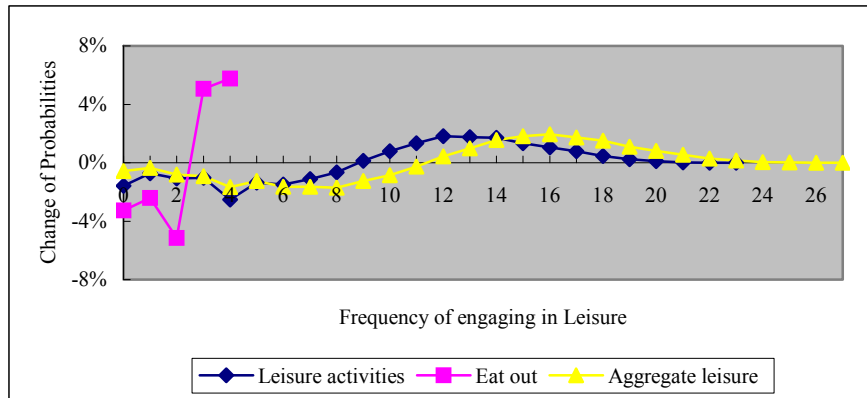
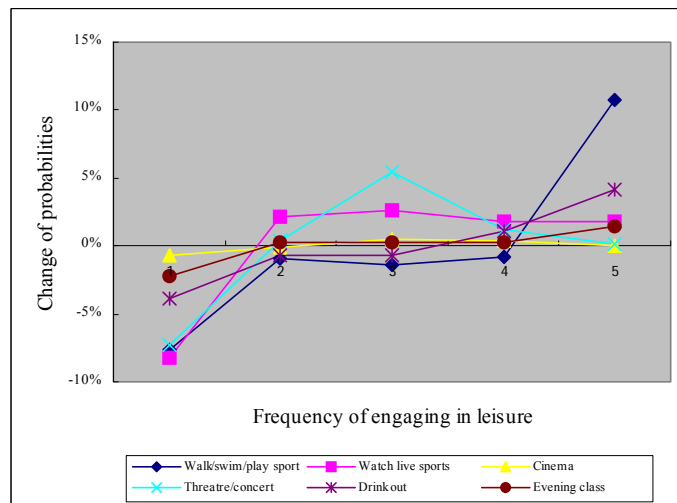


Figure 4.4: **Change of the probabilities of each frequency level of each leisure activity when SWB increases from 1 to 12**



aggregate leisure are sums of frequencies of various specific leisure activities, it is difficult to interpret the frequency of each score (X-axis) and quantify how much more frequently consumers engage in leisure activities when their well-being increases from 1 to 12. Therefore, we display the effects of well-being on the

frequency of engaging in each of these leisure activities in Figure 4.4 and clearly demonstrate that well-being positively affects consumers' frequency of engaging in each leisure activity, in support of H1b.

4.5.2 Effect of Well-Being on Hedonic Household Electronics Consumption

As we expected, the results from the fixed-effects estimations show that compared with well-being at level 0, well-being at higher levels (except level 1) does not significantly affect how much consumers spend on hedonic household electronics in the prior year (see Model 2a, Table 4.3). Hypothesis 2a thus is supported.

Table 4.3: **Effects of SWB on consumption of hedonic household electronics**

Consumption SWB	Hedonic Durable Consumption Model 2a		Frequency of Purchasing Hedonic Durables Model 2b	
	Coef.	Std. Err.	Coef.	Std. Err.
wellbeing_0	(Reference Category)			
Wellbeing_1	37.905*	18.122	0.101*	0.043
Wellbeing_2	24.978	18.140	0.124**	0.043
Wellbeing_3	22.029	17.837	0.038	0.043
Wellbeing_4	5.962	17.208	0.071	0.041
Wellbeing_5	13.752	16.776	0.073	0.040
Wellbeing_6	27.093	16.348	0.087*	0.039
Wellbeing_7	17.501	15.811	0.076*	0.038
Wellbeing_8	9.001	15.451	0.089*	0.037
Wellbeing_9	13.023	14.925	0.079*	0.036
Wellbeing_10	24.894	14.567	0.090*	0.035
Wellbeing_11	26.857	14.179	0.102**	0.034
Wellbeing_12	20.907	13.807	0.091**	0.033
R-squared	0.359		0.4117	

Notes: Control variables (not shown) are gender, age, age², marital status, household size, number of children and pre school children, education, vocational qualification, job status, partner's job status, property ownership, health status, household annual income, and region.

*0.01 < p < 0.05; **0.000 < p < 0.01; *** p = 0.000.

We also predicted that well-being would be associated with the frequency of purchasing low-cost hedonic durables. The results of the panel fixed-effects estimations, as presented in Model 2b of Table 4.3, show that compared with well-being at level 0, well-being at low levels (1–2) and high levels (6–12) have statistically significant effects on how many household electronics consumers buy, with consumption of these products controlled. Specifically, well-being at levels 1 or 2 increases the number of purchases by 0.1 and 0.12, respectively; well-being at levels 11 or 12 increases the number by 0.09 and 0.10, respectively. These results provide support for H2b.

4.6 DISCUSSION

Existing research suggests that happy people are more social, active, energetic, and likely to participate in various leisure activities (Csikszentmihalyi, 1999; Lucas 2001; Lyubomirsky, King, & Diener, 2005). Happy people may engage in these activities less for intrinsic fun and more to satisfy their valued goals, such as weight control or social connectedness (e.g., Chatzisarantis et al., 2003). We quantify the strength of this relationship, adopting a macromarketing point of view, in which we consider how well-being affects consumers' leisure consumption. Our findings demonstrate that compared with low well-being consumers, high well-being consumers prefer to spend more on leisure activities; perhaps more important, we find that greater leisure consumption results from the higher frequency of their participation in these activities, rather than engaging in indulgent expensive leisure activities. These findings seem to indicate that happy consumers engage in various leisure activities primarily to build their enduring personal resources, including physical health and social connectedness, rather than indulging in hedonistic pursuits or mere pleasure. After they achieve their goals, they do not tend to spend more. Because enduring personal resources can be built at no or low cost (e.g., jogging to build physical health, having a simple meal with friends for social connectedness), these consumers do not tend to engage in

indulgent or expensive leisure activities. Compared with low well-being consumers, who are less active and spend less on leisure, high well-being consumers are less likely to spend less than £20–£29 per month or much more than £50–£59 per month on leisure activities, entertainment, and hobbies, and/or eating out. This finding is consistent with exploratory research that suggests happy people typically cite low-cost pleasures, such as taking a bath, going swimming, and engaging in their favorite hobby, as joy-giving activities (Hatcher et al., 2008). They prefer low-cost, everyday pleasures to expensive indulgences, irrespective of their wealth (Ozari, 2007).

However, this effect of well-being on hedonic service consumption does not apply to hedonic durable consumption. Compared with extremely unhappy consumers (well-being at level 0), unhappy consumers (well-being at level 1) spend more on hedonic durables than do happier consumers (well-being at levels greater than 1). In addition, with regard to the frequency of purchasing hedonic durables, both unhappy consumers (well-being at levels 1 and 2) and happier consumers (well-being greater than level 6) more frequently buy hedonic durables than extremely unhappy consumers (well-being at level 0), whereas relatively unhappy consumers do not tend to buy more. This finding is consistent with mood repair and mood management theory (Tice & Bratslavsky, 2000; Wegener & Petty, 1994). Low well-being consumers frequently experience negative emotions, so they turn to passive actions that require less effort and can alter their negative mood immediately, such as the pleasure provided by hedonic durables (Greenberg, 1974; Tkach & Lyubomirsky, 2006). Accordingly, very low well-being consumers buy more and spend more on these products. On the contrary, high well-being consumers frequently are active and enjoy the feeling of “flow,” and their actions focus more on satisfying their long-term well-being. They may like to try novel and innovative hedonic durables, but they only buy low-cost ones for intrinsic fun, to regulate emotion, and to build their lasting personal resources. Compared with low well-being consumers (except those who are very unhappy and frequently buy hedonic durables for mood repair), they are more likely to replace products but do not tend to spend more on them, because they spend

their disposable income on more rewarding hedonic services, such as leisure activities. As a supplement to Oropas's (1995) finding that only happy people enjoy shopping hedonic electronics, we further assert that both happy and very unhappy consumers enjoy shopping for hedonic electronics, but generally speaking, happy consumers do not tend to spend more than unhappy consumers on these products.

4.7 CONCLUSION

If well-being influences people's behavior and goal pursuits, does it also affect their consumption behavior? Will happy people spend more on hedonic products? If so, how strong is this relationship? Do they spend differently on different categories of hedonic products? If so, why? To answer these questions, we have examined the relationships between well-being and hedonic service and hedonic durables consumption. Our results provide evidence that well-being plays a key role in predicting hedonic service consumption: High well-being consumers more frequently consume highly rewarding, low-cost hedonic services, and they spend more on these services to build their physical health, social connectedness, and intellectual skills. However, this relationship does not exist in the context of hedonic durable consumption. High well-being consumers more frequently buy low-cost hedonic durables for their intrinsic fun, but they do not tend to spend more on these less rewarding products, because of their poor association with long-term happiness.

4.7.1 Theoretical Contributions

These findings extend existing literature in three ways. First, our results supplement literature on consumer decision making, which has revealed that consumers' short-lived emotions influence their thinking and decisions about the purchase and use of products and services (e.g., Barone, Miniard, & Romeo, 2000; Isen, 1993a, 1993b, 2001; Kahn & Isen, 1993; Lee & Sternthal, 1999; Lewinsohn & Mano, 1993). We

highlight the key role of consumers' enduring well-being in their buying behavior. Because the effect of short-lived emotions and mood states is not long lasting (Isen, Clark, & Schwartz, 1976; Schellenberg & Blevins, 1973), they influence a consumer's momentary buying behavior and decision making, which means they may be more important motivations for buying decisions that seem less important and occur under time pressures (Wood & Bettman, 2007). For example, Kahn and Isen (1993) find that positive mood states promote variety-seeking behavior among food consumers (e.g., crackers, soup, snack foods). Research into point-of-purchase stimuli, self-gifting, impulse buying, and compulsive buying also suggests that these behaviors may be motivated by a desire to change or manage momentary moods (Elliott, 1994).

However, consumers' enduring well-being refers to a characteristic level of happiness (Diener, Suh, Lucas, & Smith, 1999; Lyubomirsky, Sheldon, & Schkade, 2005), which means it is relatively stable and enduring. This well-being influences long-term, regular, and habitual consumption behavior, which may make it even more important than a momentary mood effect when it comes to regularly purchased hedonic services (e.g., pay monthly for a gym membership) or more important decisions that involve relatively more expensive hedonic durables. In short, this research supplements existing consumer literature regarding the effects of short-lived emotions and mood states by highlighting the effect of enduring consumer well-being on long-term habitual and regular consumption behavior, which helps complete the picture of the effect of consumers' cognitive and subjective characteristics on buying behavior. Furthermore, we quantify the strength of the relationship, an effort that seldom appears in prior research.

Second, we extend the recent focus of well-being literature on the consequences of well-being. Although prior literature highlights the importance of well-being on behavior and long-term benefits (e.g., physical health, income, social support), its influence on consumers' behavior in the marketplace has not received much attention.

Our research helps fill this gap by demonstrating that SWB is positively associated with the purchase of hedonic products, and this relationship is especially strong for hedonic services.

Third, we address some methodological limitations in existing research. Most investigations into the effect of positive emotions on behaviors (parallel success) are experimental and manipulate affect temporarily, often using unrepresentative or small student samples (Lyubomirsky, King, & Diener, 2005; Sheldon & Lyubomirsky, 2006). By employing a large, nationally representative sample, we help generalize the relevant findings in daily, realistic conditions, which is crucial if marketers hope to use research findings to determine their marketing strategies. In addition, our use of longitudinal panel data enables us to filter out stable personality differences, which do not change over time but are systematically correlated with consumption, as well as with factors associated with the consumption function (e.g., well-being), and thereby assess concrete changes in consumption caused by changes in well-being. This method also can help establish causal directions (Graham, Eggers, & Sukhtankar, 2004; Sheldon & Lyubomirsky, 2006; Stutzer & Frey, 2003). As a result, we can be more confident in the implications for business, policymakers, and consumers.

4.7.2 Implications for Business, Policymakers, and Consumers

The practical implications of our findings are straightforward. First, by identifying a factor that likely affects hedonic product consumption, we assist hedonic product manufacturers and providers in gaining a better understanding of their target audiences. They can directly appeal to the requirements of these populations by developing corresponding products and marketing communications. Happy consumers should be the target audience of hedonic product companies, especially hedonic service providers. According to our data, these consumers tend to be 32–58 years of age, married or single, employed, in good health, and with an annual income between £15,000 and £40,000. Furthermore, these happy consumers prefer low-cost

hedonic services and durables, which serve to build their enduring personal resources, such as physical health and social connectedness. In their marketing communications, marketers should emphasize that their hedonic products can satisfy such alternative consumer expectations. For example, advertisements for gyms could note that their services not only help with weight control and physical health but also provide a good chance to have fun together with friends and enhance friendships. Gyms might organize team sports, such as badminton, football, and evening running groups, to attract more people who want to make new friends with the same interests. Advertising messages for big-screen televisions similarly should show people having fun while watching a film or game together with friends and family, rather than focusing on the product features and functionality. When advertising simple televisions, marketers should show people having an enjoyable evening after a stressful day at work, which highlights the product's ability to regulate their emotions and compensate for their stresses, recharging them for the next day's work. Overall, marketing communications should deliver a specific message to consumers: "I am happy, so I want to enjoy more high-quality hedonic services and/or products, to contribute to my long-term happiness." This message can increase consumers' prepurchase beliefs about the positive impact of the consumption of these products on their well-being.

Second, at a strategic level, hedonic product providers might use our proposed model to predict demand and plan future production levels. Well-being often results from economic progress and improved social conditions (Diener & Seligman, 2004). Therefore, the hedonic product industry can predict the well-being of residents according to economic and social development trends (e.g., changes in relevant economic and other policies in areas such as education, health, the environment, and welfare; Diener & Seligman, 2004). By applying the predicted levels of well-being in our proposed model, hedonic product providers can better predict demand and plan their production of specific products. Leading psychologists similarly propose the creation of a national well-being index (Diener & Seligman, 2004) that, if put into

practice, could be used together with our model to predict market demand for specific hedonic products. Gyms, cinemas, pubs, and restaurants could use predicted well-being to anticipate consumers' relevant demand in the coming year and accordingly determine developments or new franchises. This usage seems especially pertinent for low-cost hedonic service providers. Manufacturers and dealers of recreational facilities, sport clothes, and trainers similarly might forecast the market and plan their production, though they must determine the effect of well-being on each specific hedonic product or service. Therefore, further research should consider how to measure individually the effects of well-being on the consumption of drinks in pubs, cinemas or theater tickets, and visiting gyms each month, as examples. Although our findings indicate that well-being does not have a strong effect on hedonic durable consumption, it positively affects the frequency of buying hedonic durables. Hedonic durable manufacturers and dealers should distribute more resources to increase the development and production of relatively low-cost hedonic durables.

Third, our research suggests to policymakers that enhancing people's well-being has several economic benefits. The fast growing nature of the hedonic product industry and its increasing importance to countries' economies suggest that policies that enhance the well-being of the residents may boost market consumption, which could benefit the economy overall. Policymakers also might consider a national well-being index, which could have important implications for the development of the hedonic industry. Most people are happy (74% of our sample, according to Diener & Diener, 1996¹²), so our findings also suggest that more public entertainment and recreational sites could be built and more leisure activities organized. Feasible approaches also need to promote (happy) residents' access to these recreational activities to satisfy their increasing requirements for low-cost leisure.

¹² Happy consumers are defined as those whose well-being reaches a GHQ12 score of 10 or more; those with a GHQ12 score of less than 10 appear to suffer from a greater possibility of psychiatric issues (Clark, 2003).

Fourth, consumers should employ their consumption behavior to maintain their long-term happiness. For example, they might strategically choose hedonic products according to their hedonic consequences and spend in ways that balance the low costs with greater opportunities to engage in a variety of leisure activities. They also might buy more hedonic durables to meet their valued goals.

4.7.3 Limitations and Further Research

As with all the studies, this investigation suffers from some limitations. First, we consider only leisure consumption and hedonic household electronics consumption. The complicated relationship between a consumer's well-being and consumption behavior suggests that our results may not generalize to other hedonic service and durable consumption categories. Therefore, research should explore more categories, such as vacation services, luxury furniture, or cars. The effect of well-being on each consumption subcategory might differ, and as we suggested in the preceding section, the effect of well-being on the consumption of each hedonic service (e.g., eating in a restaurant per month) or hedonic service product (e.g., sporting goods) provides an interesting research avenue. With such information, product or service providers could forecast demand and the market for their product or service, which would enable them to plan their production more effectively.

Second, additional research should test our predictions in other, nonhedonic consumption categories. High well-being consumers spend on hedonic services primarily to build their enduring personal resources; thus, our findings suggest that well-being drives consumption behavior that enhances a consumer's long-term benefits. Does a similar relationship exist for some nonhedonic services, developed just to promote people's long-term goals and benefits, such as higher education, vocational training, or financial planning? Although these services might not be as pleasurable as leisure activities, their long-term benefits, challenging experiences, and perceived risk and stimulation likely cause high well-being consumers to be more

involved in them. Replications in such service environments could be fruitful in terms of understanding the role of well-being in people's consumption behavior.

Third, we employ secondary data, collected at one-year intervals, and therefore use the same year's regular and habitual consumption behavior. However, beyond the effect of well-being, people's regular consumption behavior might be affected by other life events that could cancel out or mitigate the effect of well-being on hedonic consumption. Accordingly, research should collect more primary data to measure people's hedonic consumption levels one to two months after measuring their well-being,¹³ which should provide a more accurate estimation of the direct effect of well-being on hedonic consumption.

Fourth, the BHPS data originally were collected to understand social and economic change rather than psychological backgrounds. Therefore, we cannot test some assumed explanations posited by our theoretical position directly (e.g., happy people consume to achieve intrinsic rather than extrinsic goals). Although the pattern of the results is consistent with existing literature, further research might use other types of data, such as primary and perceptual data, and ask consumers personal questions about the purposes of their consumption of specific services and products. These responses may indicate how much people spend on hedonic products for their intrinsic goals and how well they achieve these goals through consumption. Such data also could reveal mediating effects of people's consumption behavior on the effect of their well-being on enduring personal resources or long-term goals. For example, how strong is the mediating effect of physical leisure consumption (e.g., gym memberships) on the effect of well-being on consumers' (perceived) weight control and health? How strong is the mediating effect of leisure consumption on social activities (e.g., meeting friends) on the effect of well-being on how many friends these consumers have or their perceptions of friendship, social connectedness, and social support? Such

¹³ We suggest this time lag, because well-being correlates with life events that have happened in the past three months, and the effect dissipates over time (Suh, Diener, & Fujita, 1996).

findings may provide a deeper understanding of the consequences of consumption behavior for people's health and social lives, which would enhance the social significance and reputation of consumer behavior research.

Fifth, the data used in this research were only gathered in one country (the United Kingdom). However, we are illustrating a general phenomenon/theory of the role of well-being in shaping people's consumption behavior, which should have wide applicability, but only by testing these issues in other countries/cultures can we be sure of this.

APPENDICES TO CHAPTER 4

Appendix 4.1: The General Health Questionnaire (GHQ) 12 Score Questions

Have you recently...

1. been able to concentrate on whatever you're doing?
(1 Better than usual; 2 Same as usual; 3 Less than usual; 4 Much less than usual)
2. lost much sleep over worry?
(1 Not at all; 2 No more than usual; 3 Rather more than usual; 4 Much more than usual)
3. felt that you were playing a useful part in things?
(1 More so than usual; 2 Same as usual; 3 Less so; 4 Much less)
4. felt capable of making decisions about things?
(1 More so than usual; 2 Same as usual; 3 Less so than usual; 4 Much less capable)
5. felt constantly under strain?
(1 Not at all; 2 No more than usual; 3 Rather more; 4 Much more)
6. felt you couldn't overcome your difficulties?
(1 Not at all; 2 No more than usual; 3 Rather more; 4 Much more)
7. been able to enjoy your normal day-to-day activities?
(1 More so than usual; 2 Same as usual; 3 Less so than usual; 4 Much less than usual)
8. been able to face up to problems?
(1 More so than usual; 2 Same as usual; 3 Less so than usual; 4 Much less than usual)
9. been feeling unhappy and depressed?
(1 Not at all; 2 No more than usual; 3 Rather more; 4 Much more)
10. been losing confidence in yourself?
(1 Not at all; 2 No more than usual; 3 Rather more; 4 Much more)
11. been thinking of yourself as a worthless person?

(1 Not at all; 2 No more than usual; 3 Rather more; 4 Much more)

12. being feeling reasonably happy; all things considered?

(1 More so than usual; 2 Same as usual; 3 Less so than usual; 4 Much less than usual)

Appendix 4.2: Measures of Leisure Consumption Variables

1. Consumption of leisure activities, entertainment, and hobbies

How much do you personally spend in an average month on leisure activities, and entertainment and hobbies, other than eating out?

0 = nothing; 1 = under £10; 2 = £10–£19; 3 = £20–£29; 4 = £30–£39; 5 = £40–£49; 6 = £50–£59; 7 = £60–£79; 8 = £80–£99; 9 = £100–£119; 10 = £120–£139; 11 = £140–£159; and 12 = £160 or more.

2. Consumption of dining out experiences

How much do you personally spend in an average month on eating out at, or buying take-away food from a restaurant, pub or cafe, including school meals or meals at work?

0 = nothing; 1 = under £10; 2 = £10–£19; 3 = £20–£29; 4 = £30–£39; 5 = £40–£49; 6 = £50–£59; 7 = £60–£79; 8 = £80–£99; 9 = £100–£119; 10 = £120–£139; 11 = £140–£159; and 12 = £160 or more.

3. Aggregate leisure consumption

Aggregate leisure consumption consists of the sum of consumption of leisure activities, entertainment, and hobbies and consumption of dining out, resulting in a 0–24 range of scores (0–£320 or more).

Appendix 4.3: Measures of Frequency of Engaging in Leisure Activities

1. Frequency of engaging in leisure activities, entertainment, and hobbies

We are interested in the things people do in their leisure time, I'm going to read out a list of some leisure activities. Please look at the card (V4) and tell me how frequently you do each one...

- 1) Play sport or go walking or swimming
- 2) Go to watch live sport
- 3) Go to the cinema
- 4) Go to a concert, theatre or other live performance
- 5) Go out for a drink at a pub or club
- 6) Attend leisure activity groups such as evening classes, keep fit, yoga etc

All responses to the questions use five-point Likert-type scales (1 At least once a week; 2 At least once a month; 3 Several times a year; 4 Once a year or less; 5 Never/almost never). In the present research, we inverse the scale of each response and recode it as 0 (Never/almost never) to 4 (At least once a week). The frequency of engaging in leisure activities, entertainment, and hobbies equals the sum of the recoded responses to each related question, for a score range from 0 to 23.

2. Frequency of eating out

We are interested in the things people do in their leisure time, I'm going to read out a list of some leisure activities. Please look at the card (V4) and tell me how frequently you do each one... Have a meal in a restaurant, cafe or pub

Optional responses to the question use five-point Likert-type scales (1 At least once a week; 2 At least once a month; 3 Several times a year; 4 Once a year or less; 5 Never/almost never). Here, frequency of eating out uses the inverse of the response

from the question about eating out, resulting in a score range from 0 to 4.

3. Frequency of aggregate leisure

The aggregate leisure frequency sums the frequency of engaging in leisure activities, entertainment, and hobbies score and frequency of eating out score, which results in a score range from 0 to 27

CHAPTER 5

CONCLUSION

5.1 SUMMARY OF FINDINGS

This thesis has investigated the relationship between SWB and consumption from the framework of three main research issues. The employment of the large national panel data from BHPS and the use of the econometrics panel fixed-effects and random-effects ordered probit models provide us greater confidence in the findings, contribution to knowledge, as well as the implications for consumers, policymakers, and marketing practice. But before presenting specific contributions and implications of each research issue, and the overall theoretical contributions, a summary of the findings of the three empirical studies will be presented.

5.1.1 Research Issue 1: The Mediating Mechanism of Satisfaction in the Relationship between Objective Circumstances and SWB.

The first research focus represents a response to Diener et al.'s (1999) call to resolve the question of how objective life circumstances may interact with internal factors (e.g., subjective cognitions) to affect well-being. Therefore, this research empirically examines the mediating mechanism of subjective satisfaction in the relationship between objective circumstances and SWB in six life domains.

The results highlight the mediating role of satisfaction with objective circumstances on the effect of objective circumstances on well-being. In turn, they confirm some

previous literature that suggests a weak effect of objective circumstances on well-being. However, the relationship is quite complicated, varying from one life domain to another. Physical health and engaging in leisure activities affect well-being directly, but they also have an indirect effect through satisfaction with these objective circumstances. Housing only affects well-being indirectly through satisfaction. Finally, income, a supportive partner, and job type and job pay have no effect on well-being; rather, satisfaction with these circumstances affects well-being independently.

5.1.2 Research Issue 2: The Mediating Impact of Satisfaction on The Effect of Hedonic Product Consumption on Well-Being.

This investigation represents a new focus in well-being research: What can people do to enhance their well-being and improve understanding of well-being (Diener & Biswas-Diener, 2008)? The examination in this thesis pertains to the context of hedonic product consumption, an understudied topic in prior research. To understand the specific processes that account for the effect of hedonic product consumption on well-being and examine the critical mediators that underlie the effectiveness of consumption behavior, following calls for more research, this thesis examines the extent to which the relationship is mediated by people's satisfaction with life domains.

Leisure consumption promotes happiness. Perhaps even more important, such consumption contributes to well-being solely through the mediating effect of satisfaction with the relevant life domains (i.e., use of leisure time, social life, and health). Therefore, spending on hedonic products to achieve mere pleasure is not a real source of well-being. Instead, people engage in hedonic consumption to build their enduring personal resources in various life domains (e.g., physical health, social connections), and their satisfaction with these life domains leads to their well-being. In addition, when leisure consumption is controlled, the frequency of engaging in leisure activities positively affects well-being. That is, low-cost leisure activities

appear to be primary sources of satisfaction associated with the relevant life domains, as well as with well-being.

5.1.3 Research Issue 3: The Differential Impacts of SWB on Hedonic Service Consumption versus Hedonic Durable Consumption

This final research issue pertains to another component that is crucial for understanding well-being, namely, the functions of SWB (Diener & Biswas-Diener, 2008). The research gap in relevant literature prompts this investigation of the issue in the context of hedonic consumption, as well as a consideration of whether high well-being consumers spend more on hedonic services than hedonic durables, due to the difference in these two types of consumption (see Chapter 4). Finally, this research focus helps explain why SWB might lead to hedonic service and durable consumption.

Well-being plays a key role in predicting hedonic service consumption: High well-being consumers consume highly rewarding, low-cost hedonic services more frequently, and they spend more on these services to build up their physical health, social connectedness, and intellectual skills. However, they do not exhibit the same relationship with hedonic durable consumption. That is, high well-being consumers buy low-cost hedonic durables for their intrinsic fun, but they do not tend to spend more on less rewarding products, possibly because of the poor association they offer with long-term happiness.

5.2. RESEARCH IMPLICATIONS

Consistent with the recent focus in consumer research on improving consumer welfare and quality of life (Williams, & Lee, 2006), the empirical studies in this thesis take important steps toward understanding ways to improve consumer welfare, because

they adopt a systematic approach to examining what contributes to consumer well-being (e.g., Chapter 2: what circumstances make consumers happy?; Chapter 3: how can consumption enhance well-being?). The three empirical chapters provide a closer look at what happiness really means to consumers and what consumers really want. They thus address an important gap in consumer research by focusing on consumer well-being. These studies contribute to existing literature both methodologically and theoretically, and the results have implications for both researchers and practitioners. Furthermore, they represent critical advances in the broader understanding of consumers' quality of life and SWB. Finally, they raise interesting issues regarding how consumer researchers might gain an even better understanding of SWB, as well as ways in which well-being might be enhanced through marketing practices. Table 5.1 summarizes the implications of the three key research issues.

5.3. THEORETICAL CONTRIBUTIONS

The research findings and contributions make contributions to theory pertaining to the causal directions of well-being and consumer behavior.

5.3.1. Well-being and Regular and Habitual Consumption Behavior

The first contribution is that this thesis demonstrates a correlation between well-being and regular and habitual beneficial consumption behavior. Consumer literature has focused on short-lived emotions and revealed that varied consumption experiences generate different types of emotional responses (Havlena & Holbrook, 1986; Luce, Bettman, & Payne, 2001), evidence has also indicated that consumers' short-lived emotions influence their buying decisions (e.g., Kahn & Isen, 1993; Isen, 2001). However, enduring well-being has not received much attention. This research supplements this gap in consumer literature by highlighting the crucial relationship

Table 5.1: Implications Of Three Research Issues

Research Issues and Status in Extant Literature	Conclusions made for Each Research Issue
<i>RI 1: How do objective life circumstances affect well-being indirectly through the mediating effect of satisfaction with the objective circumstances?</i>	
Prior research indicates that subjective and objective circumstantial factors interact in determining well-being and only shows the evidence in the life domain of health.	Theoretical contributions: 1.1 This research shows that this interaction not only exists in health, but also exists in housing and leisure, but does not exist in income, having a supportive partner, job type and job pay.
Prior research evidence suggests that well-being may be largely driven by subjective interpretation.	1.2 This research provides the evidence that the relative importance of subjective satisfaction is domain specific. In life domains of income, having a supportive partner, job type and job pay, they completely determine well-being, while in life domains of housing, leisure, and health, they interact with corresponding objective circumstances in determining well-being.
Prior research evidence shows that satisfaction with the process of consuming as well as having consumer goods have significant effect on well-being.	1.3 This research finds that consuming hedonic service products has much higher impact on well-being than consuming hedonic consumer goods.
Prior research documents the evidence that satisfaction in life domains such as job, recreation, and finances do not have a significant effect on well-being.	1.4 This research shows the evidence that satisfaction within all life domains has a significant positive impact on SWB.
<p>Practical implications: 1.1 Consumers should self-help themselves to enhance their well-being, e.g., appreciate what they have, avoid social comparison.</p> <p>1.2 A comprehensive well-being model is built to help people to have a deep understanding of well-being, to enhance their well-being, and in turn promote their long-term success and economic and social development as happy people function better in work, health, interpersonal relations, and most other aspects of lives.</p> <p>1.3 By demonstrating that consumer goods and services have positive effects on consumers' well-being and thus that marketing could be used to contribute to consumers' satisfaction, it helps to enhance the image and reputation of consumption and marketing.</p> <p>1.4 Policymakers should make use of economic growth to improve housing conditions, public leisure facilities, and health services in order to enhance well-being.</p>	
<i>RI 2: How much does hedonic consumption affect SWB? And how much is the relationship mediated by people's satisfaction with their relevant life domains?</i>	
Prior research shows that certain types of intentional activities such as trying to be kind to others or practicing gratitude offer ways to enhance well-being.	Theoretical contribution: 2.1 This research shows that beneficial consumption behavior of hedonic products is an effective activity that can increase well-being.
Consumer research demonstrates that consumption experiences and decisions generate different short-lived emotions.	2.2 This research shows that hedonic product consumption that improves quality of life domains associated with the consumption leads to enduring well-being.
Prior research suggests that the bottom-up and top-down integrative model provides the most comprehensive portrayal of SWB.	2.3 This research confirmed this integrative model in the context of hedonic product consumption.

Continued

Research Issues and Status in Extant Literature	Conclusions made for Each Research Issue
<p>Practical implication: 2.1 Consumers a) can achieve happiness by spending their resources on low-cost hedonic products that correlate with their intrinsic motivations; b) thinking optimistically plays a crucial role in their happiness.</p> <p>2.2 Marketers should change their marketing messages to consumers to encourage them to believe that their hedonic products can satisfy their expectations of achieving valued goals rather than only provide mere pleasure.</p>	
<p><i>RI 3: What is the relationship between well-being and hedonic consumption? And How does well-being affect hedonic service consumption and hedonic durable consumption differently, and why?</i></p>	
<p>Prior research shows that consumers' short-lived emotions influence their temporary buying decisions that more likely to be less important and occur under time pressures (e.g., impulse buying).</p>	<p>Theoretical contributions: 3.1 This research reveals that consumers' enduring well-being affects their long-term, regular, and habitual consumption behavior.</p>
<p>Prior research shows that enduring well-being and short-lived affect are associated with beneficial behavior (e.g., engagement in social activities) and long-term success (e.g., physical health, social support).</p>	<p>3.2 This research shows that SWB influences hedonic product consumption, and the relationship is especially strong for hedonic service consumption.</p>
<p>Practical implications: 3.1 Consumers should choose low-cost hedonic products according to their hedonic consequences to maintain their long-term happiness.</p> <p>3.2 To hedonic product providers a) high well-being consumers should be a key target audience for them; b) they should increase the development and production of low-cost hedonic products to satisfy their happy consumers; c) in their marketing communications, they should emphasize that their hedonic products can satisfy consumer expectations of building enduring personal resources (e.g., health, social connectedness); d) in predicting and forecasting future demand for their hedonic products given we know levels of well-being.</p> <p>3.3 To policymakers that a) public entertainment and recreational sites could be built and more leisure activities organized to enhance the well-being of the residents; b) enhancing people's well-being has several economic benefits, such as boost market consumption, which benefits the economic development of a country.</p>	
<p>Most prior research a) measures SWB with other scales b) uses cross-sectional data or experiments with small (student) samples</p>	<p>Methodological contributions (research issues 1, 2, & 3): a) Measure SWB with GHQ 12 (see Section 1.3.2 for advantages of GHQ12) b) Use longitudinal panel data with large nationally representative sample (See Section 1.3.3 for advantages of the longitudinal panel data with national sample)</p>

between enduring well-being and consumption behavior: Regular and habitual hedonic service consumption enables consumers to repeat hedonic experiences more frequently, which leads to their well-being (Chapter 3), and consumers' relatively more stable well-being influences their long-term, regular, and habitual consumption behavior (Chapter 4). Consumption correlates with well-being particularly in the form of building enduring personal resources, such as health and social connectedness (Chapters 3 and 4). Consumption correlates with short-lived emotions instead mainly feature immediate or temporary purchasing behavior or minor decisions, such as point-of-purchase stimuli, self-gifting, and impulse buying. This kind of consumption behavior is more likely for temporary psychological satisfaction or fun. For example, a nice holiday or a new pair of shoes may make consumers happy, but that happiness will not last long. Repeated, meaningful consumption of leisure activities that improve the quality of some relevant life domains instead prompt enduring well-being. On the flip side, short-lived positive emotions tend to lead to spending on immediate purchases for mere pleasure, such as shoes or holidays, whereas enduring well-being is more likely to prompt monthly spending on, for example, gym membership. Figure 5.1 shows a 2 x 2 matrix diagram for the relationship between short-lived emotions or enduring well-being and differential consumption behavior emphasized in existing consumer research versus the present research. As another contribution, this line of research further quantifies the focal relationship, seldom seen in research pertaining to the link between consumers' emotions and their buying behavior.

Figure 5.1: **The relationship between short-lived emotions or enduring well-being and differential consumption behavior**

Temporary purchase for mere pleasure	Habitual purchase for long-term happiness	
<p>Existing consumer research</p> <p>(e.g. impulse buying, point-of-purchase stimuli, self-gifting)</p>	<p>Purchase unlikely</p>	<p>Short-lived emotions</p>
<p>Purchase unlikely</p>	<p>The present research</p> <p>(e.g., monthly spending on gym membership)</p>	

5.3.2 Consumption Purposes, Consumers’ Subjective Cognitions, and Product Categories Determine the Relationship between Consumption and Happiness

The second overall contribution that this thesis provides is empirical evidence that considerations of the relationship between consumption and happiness should combine with the purpose of the consumption, consumers’ subjective cognitions, and the product categories. The role of consumption is somewhat awkward; some behavioral research suggests, for example, consumption is evil. The Diderot effect, “a force that encourages the individual to maintain a cultural consistency in his/her complement of consumer goods” (McCracken, 1988, p. 123), suggests that even impulsive consumption may cause consumers start to look forward to greater and greater consumption levels, until they eventually “imprison him and frustrate his efforts to redefine himself” and “prohibits the attainment of consumer satisfaction” (McCracken, 1988, p. 128). The constant generation of needs may even cause people to feel strapped for cash and increase consumer debt (Schor, 1999). When people consider consumption and acquisition the central goal of their lives, they pursue

happiness through material possession, which is negatively associated with well-being (e.g., Belk, 1984; Kau, Kwon, Tan, & Wirtz, 2000; Richins, 1995; Wachtel & Blatt, 1990).

Yet other researchers argue that consumers can derive happiness from the marketplace. Duesenberry's consumption emulation theory (Douthitt et al. 1992; also see the social comparison theory of Festinger, 1954; Veenhoven, 1991, 1996; Veenhoven & Ehrhardt, 1995) suggests that people derive satisfaction from emulating their neighbors' or reference group's consumption behavior. Demand theory (Suranyi-Unger, 1981) proposes that consumers try to maximize their satisfaction by consuming goods. The market-centric perspective (Samli, Sirgy, & Meadow, 1987) argues that people enhance their well-being through the material accumulation of goods. Consumption and consumer products, especially consumer hedonic goods, thus may have become increasingly important to the good life and happiness for modern consumers (Burroughs & Rindfleisch, 2002; Hirschman, 1982; Scitovsky, 1976, 1986).

The findings presented in this thesis have critical implications for resolving these inconsistent perspectives by demonstrating that (1) consumption only contributes to well-being if it serves to improve the quality of the relevant life domains associated with the consumption, which improve consumers' satisfaction in these life domains (Chapters 2 and 3); (2) consumers' subjective cognition (e.g., being satisfied with what they have) plays a crucial role (Chapters 2 and 3); (3) the consumption of different product categories (e.g., hedonic services versus hedonic durables) may have different correlations with well-being (Chapter 4); and (4) well-being only correlates with consumption designed to build enduring personal resources (e.g., physical health, social connectedness) or for intrinsically motivated purposes (e.g., intrinsic fun, regulating emotions), not with expensive indulgent hedonic consumption (e.g., hedonistic pursuit) or for extrinsically motivated purposes (e.g., social comparison) (Chapter 4). Thus, it does not make sense to talk about the relationship between

consumption and well-being in general. The findings of these studies may indicate that consumption itself may not be bad; it can facilitate well-being if it serves to build personal resources or improve quality of life domains. But it also can lead to unhappiness if it is used for purposes such as social comparison. And in this relationship, consumers' psychological satisfaction is a crucial factor. Further research into well-being and consumption therefore must consider the purpose of the consumption, how people value and become satisfied with the life domains associated with that consumption, as well as the focal product categories.

5.3.3 Bidirectional Causality Between Well-being and Positive Activities

The final contribution is that this thesis supports an idea that there is a bidirectional relationship exists between SWB and consumption behavior for hedonic products, though our research cannot directly demonstrate this relationship. This is new because previous research only investigates well-being from one causal direction. For example, significant research reveals that desirable objective circumstances (e.g., health, employment, marriage) have positive impacts on well-being (Diener, Suh, Lucas, & Smith, 1999), and considerable research evidence shows that happy people are more likely to be successful (Lyubomirsky, King, & Diener, 2005). Although such evidence may indirectly suggest a bidirectional relationship, and some authors even note that the causality could be bidirectional (Lyubomirsky, King, & Diener, 2005), seldom has empirical research examined it directly. There are only very few early exceptions. For example, Headey et al. (1991) consider the bidirectional relationship between domain satisfaction and well-being, and Feist et al. (1995) study the relationship between health and well-being. However, the positive behavior (e.g., beneficial consumption behavior), which is arguably the best potential route to enhance enduring well-being, was missed out (Lyubomirsky, Sheldon, & Schkade, 2005). However, the results of our study 2 (the positive effect of hedonic consumption on well-being) and study 3 (the positive effect of well-being on hedonic consumption) indirectly demonstrated that there might be a bidirectional causality between well-being and hedonic product

consumption. This helps add to a more complete picture of the causality in well-being research. Future research is needed to provide empirical support for such relationship.

5.4. LIMITATIONS AND IMPLICATIONS FOR FURTHER RESEARCH

An abundance of evidence shows that unemployment hinders well-being and that being married makes people happier. Yet Chapter 2 reveals that other lower-level life domains, such as job type and job pay or having a supportive partner, do not correlate with well-being. Similarly, Chapter 4 indicates that well-being significantly affects the consumption of both leisure activities and eating out, yet it has stronger effects on the former. The very different relationship between well-being and different lower-level life domains thus suggest additional research should further this line of inquiry and investigate the relationship between well-being and lower-level life domains. For example, does well-being have stronger effects on leisure consumption than on holiday consumption? Does working from home make people much happier than traveling to work everyday during rush hour? Such detailed investigations may have even stronger practical implications.

This thesis focuses on hedonic consumption, especially hedonic service consumption, with the assumption that all people want to enjoy pleasure and fun and that hedonic products should be most correlated with well-being. However, only hedonic product consumption that focuses on building enduring personal resources or improving the quality of life correlates with well-being. This finding raises a question about whether utilitarian product consumption that can improve the quality of life domains might increase well-being, especially considering that housing affects well-being through satisfaction with the house. Further research should extend the consumption categories to utilitarian products, especially consumer necessities such as food. Due to the limitation of the data in this research, we could not directly test the relationship

between the purpose of each consumption and well-being. Studies should also be undertaken, using, for example diaries, or in-depth interviewing, to examine this relationship directly.

Finally, a major limitation of this research pertains to its setting, which is confined to the United Kingdom. Consumers' different understandings of well-being and varied consumption cultures and economic condition indicate it would be interesting to replicate this research in other developed countries, such as the United States. It might be even more interesting to test the findings in developing countries, such as China, where Eastern beliefs and culture may result in very different perceptions of luxury goods, or where consumers may have much less time or resources to expend on leisure activities.

REFERENCES

- Abbe, A., Tkach, C., & Lyubomirsky, S. (2003). The art of living by dispositionally happy people. *Journal of Happiness Studies*, 4, 385 - 404.
- Abbott, R. A., Ploubidis, G. B., Huppert, F. A., Kuh, D., Wadsworth, M. EJ, & Croudace, T. J. (2006). Psychometric evaluation and predictive validity of Ryff's psychological well-being items in a UK birth cohort sample of women. *Health Qual Life Outcomes*, 4, 76.
- Ahuvia, A. C., & Friedman, D. C. (1998). Income, consumption, and subjective well-being: Toward a composite macromarketing model. *Journal of Macromarketing*, 18, 153-168.
- Ameriks, J., Caplin, A., & Leahy, J. (2002). Retirement consumption; insights from a survey. National Bureau of Economic Research (NBER) Working Paper Series, Working Paper 8735.
- Andrews, F. M., & Withey, S. B. (1976). *Social indicators of well-being*. New York: Plenum Press.
- Argyle, M. (1989). *The psychology of happiness*. London: Routledge.
- _____ (1992). *The social psychology of everyday life*. London: Routledge.
- _____ (1999). Causes and correlates of happiness. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 353-373). New York: Russell Sage Foundation.
- Aron, A., Norman, C. C., Aron, E. N., McKenna, C., & Heyman, R. E. (2000). Couple's shared participation in novel and arousing activities and experienced relationship quality. *Journal of Personality and Social Psychology*, 78, 273-284.
- Atkinson, T. (1982). The stability and validity of quality of life measures. *Social Indicators Research*, 10, 113-32.
- Baron, R. A. (1987). Interviewer's moods and reactions to job applicants: The influence of affective states on applied social judgments. *Journal of Applied Social Psychology*, 17, 911-926.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.

- Barone, M. J., Miniard, P. W., & Romeo, J. B. (2000). The influence of positive mood on brand extension evaluations. *Journal of Consumer Research*, 26, 386-401.
- Bech, P., Gudex, C., & Johansen, K. S. (1996). The WHO ten well-being index: Validation in diabetes. *Psychotherapy and Psychosomatics*, 65, 183-190.
- Beiser, M. (1974). Components and correlates of mental well-being. *Journal of Health and Social Behavior*, 15, 320-327.
- Belk, R. (1984). Three scales to measure constructs related to materialism: reliability, validity, and relationships to measures of happiness. In T. Kinnear (Eds.), *Advances in consumer research*, Vol.11, 265-280. UT: Association for Consumer Research.
- Belk, R. (1988). Possessions and the extended self. *Journal of Consumer Research*, 15, 139-68.
- Biswas-Diener, R., & Diener, E. (2001). Making the best of a bad situation: Satisfaction in the slums of Calcutta. *Social Indicators Research*, 55, 329-352.
- Blanchflower, D. G., & Oswald, A. J. (2004). Well-being over time in Britain and the USA. *Journal of Public Economics*, 88, 1359– 1386.
- Bollen, K., & Lennox, R. (1991). Conventional wisdom on measurement: A structural equation perspective. *Psychological Bulletin*, 110, 305-314.
- Boulton, M. J., & Smith, P. K. (1992). The social nature of play fighting and play chasing: Mechanisms and strategies underlying cooperation and compromise. In J. H. Barkow, L. Cosmides & J. Tooby (Eds.), *The adapted mind: Evolutionary psychology and the generation of culture* (pp. 429-444). New York: Oxford University Press.
- Boven, L. V. (2005). Experientialism, materialism, and the pursuit of happiness. *Review of General Psychology*, 9, 132–142.
- Bradburn, N. M. (1969). *The structure of psychological well-being*. Chicago: Aldine.
- Bradburn, N. M., & Caplovitz, D. (1965). *Reports on happiness*. Chicago: Aldine.
- Brickman, P., Coates, D., & Janoff-Bulman, R. (1978). Lottery winners and accident victims: Is happiness relative? *Journal of Personality and Social Psychology*, 36, 917–927.
- Brief, A. F., Butcher, A. H., George, J. M., & Link, K. E. (1993). Integrating

- bottom-up and top-down theories of subjective well-being: The case of health. *Journal of Personality and Social Psychology*, 64, 646-653.
- Burroughs, J. E., & Rindfleisch, A. (2002). Materialism and well-being: A conflicting values perspective. *Journal of Consumer Research*, 29, 348-370.
- Calder, B. J., & Staw, B. M. (1975). Self-perception of intrinsic and extrinsic motivation. *J Pers Soc Psychol*, 31, 599-605.
- Campbell, A. (1976), Subjective measures of well-being. *American Psychologist*, 31: 117-24.
- Campbell, A., Converse, P. E., & Rodgers, W. L. (1976). *The quality of American life: Perceptions, evaluations, and satisfactions*. New York: Russell Sage Foundation.
- Cantor, N., Norem, J., Langston, C., Zirkel, S., Fleeson, W., & Cook-Flannagan, C. (1991). Life tasks and daily life experience. *Journal of Personality*, 59, 425-451.
- Cantril, H. (1965). *The pattern of human concerns*. New Brunswick, NJ: Rutgers University Press.
- Carver, C. S., & Scheier, M. F. (1998). *On the self regulation of behavior*. New York: Cambridge University Press.
- Chatzisarantis, N. L., Hagger, M. S., Biddle, S. J., Smith, B., & Wang, J. C. (2003). A meta-analysis of perceived locus of causality in exercise, sport, and physical education contexts. *Journal of Sport and Exercise Psychology*, 25, 284-306.
- Christoph, B., & Noll, H. (2003). Subjective well-being in the European union during the 90s. *Social Indicator Research*, 64, 521-546.
- Christopher, A. N., Kuo, S. V., Abraham, K. M., Noel, L. W., & Linz, H. E. (2004). Materialism and affective well-being: the role of social support. *Personality and Individual Differences*, 37, 463-470.
- Chua, B. H. (1996). *Private Ownership of Public Housing in Singapore*. Working Paper No. 63, Asia Research Centre or Murdoch University.
- Churchill Jr., G. A., & Peter, J. P. (1984). Research Design Effects on the Reliability of Rating Scales: A Meta-Analysis. *Journal of Marketing Research*, 21, 360-375.
- Clark, A. E. (2003). Unemployment as a social norm: Psychological evidence from panel data. *Journal of Labour Economics*, 21, 323-51.

- Clark, A.E., Georgellis, Y., & Sanfrey, P. (2001). Scarring: the psychological impact of past unemployment. *Economica*, 68, 221 - 241.
- Clark, A. E., & Oswald, A. J. (1994). Unhappiness and unemployment. *The Economic Journal*, 104, 648-659.
- Clore, G. L., Wyer, R. S., Jr., Dienes, B., Gasper, K., & Isbell, L. M. (2001). Affective feelings as feedback: Some cognitive consequences. In L. L. Martin & G. L. Clore (Eds.), *Theories of mood and cognition: A user's guidebook* (pp. 27-62). Hillsdale, NJ: Erlbaum.
- Cole, I., & Furbey, R. (1994). *The Eclipse of Council Housing*. London: Routledge.
- Cooper, C. (1974). The House as a symbol of the self. In J. Lang et al. (Eds.), *Designing for human behavior* (pp. 130-46). Stroudsburg, PA: Dowden, Hutchinson, and Ross.
- Costa, P. T., McCrae, R. R., & Zonderman, A. B. (1987). Environmental and dispositional influences on well-being: Longitudinal follow-up of an American national sample. *British Journal of Psychology*, 78, 299-306.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York: Harper & Row.
- _____ (1999). If we are so rich, why aren't we happy? *American Psychologist*, 54, 821-827.
- Csikszentmihalyi, M., & Wong, M. M. (1991). The situational and personal correlates of happiness: A cross-national comparison. In F. Strack, M. Argyle, & N. Schwarz (Eds.), *Subjective well-being: An interdisciplinary perspective* (pp. 193-212). Elmsford, NY: Pergamon Press.
- Cunningham, M. R. (1988). Does happiness mean friendliness? Induced mood and heterosexual self-disclosure. *Personality and Social Psychology Bulletin*, 14, 283-297.
- Dagger, T. S., & Sweeney (2006). The effect of service evaluations on behavioral intentions and quality of life. *Journal of Service Research*, 9 (1): 3-18.
- Day, R. L. (1987). Relationship between life satisfaction and consumer satisfaction. In A. C. Samli (Eds.), *Marketing and Quality-of-Life Interface* (pp. 289-311). Westport, CT: Greenwood.
- De Vaus, D. A. (1991). *Surveys in Social Research* (3rd ed.). London : UCL Press,

1991.

Dhar, R., & Wertenbroch, K. (2000). Consumer choice between hedonic and utilitarian goods. *Journal of Marketing Research*, 37, 60-71.

Di Tella, R., MacCulloch, R., & Oswald, A.J. (2001). Preferences over inflation and unemployment: evidence from surveys of happiness. *American Economic Review*, 91, 335– 341.

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

_____ (1994). Assessing subjective well-being: Progress and opportunities. *Social Indicators Research*, 31, 103–157.

_____ (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist*, 55, 34-43.

Diener, E., & Biswas-Diener, R. (2002). Will money increase subjective well-being? *Social Indicator Research*, 57, 119-169.

Diener, E., & Biswas-Diener, R. (2008). *Happiness: unlocking the mysteries of psychological wealth*. Blackwell Publishing.

Diener, E., & Diener, C. (1996). Most people are happy. *Psychological Science*, 7 (3), 181-185.

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., Gohm, C., Suh, E., & Oishi, S. (2000). Similarity of the relations between marital status and subjective well-being across cultures. *Journal of Cross-Cultural Psychology*, 31, 419-436.

Diener, E., & Larsen, R. J. (1993). The experience of emotional well-being. In M. Lewis & J.M. Haviland (Eds.), *Handbook of emotions* (pp. 405-416). Guilford: New York.

Diener, E., Larsen, R. J., & Emmons, R. A. (1984). Person X situation interactions: Choice of situations and congruence response models. *Journal of Personality and Social Psychology*, 47, 580-592.

Diener, E., & Lucas, R. (2000). Subjective emotional well-being. In M. Lewis & J. M. Haviland-Jones (Eds.), *Handbook of emotions* (2nd ed., pp. 325-337). New York: Guilford.

- Diener, E., Lucas, R. E., & Scollon, C. N. (2006). Beyond the hedonic treadmill: Revising the adaptation theory of well-being. *American Psychologist*, 61, 305-314.
- Diener, E., & Oishi, S. (2000). Money and happiness: Income and subjective well-being across nations. In E. Diener & E.M. Suh (Eds.), *Culture and subjective well-being* (pp. 185–218). Cambridge, MA: MIT Press.
- Diener, E., Sandvik, E., Seidlitz, L., & Diener, M. (1993). The relationship between income and subjective well-being: Relative or absolute? *Social Indicators Research*, 28, 195-223.
- Diener, E., & Seligman, M. E.P. (2004). Beyond money: Toward an economy of well-being. *Psychological Science in the Public Interest*, 5, 1-31.
- Diener, E., & Suh, E. (1997). Measuring quality of life: Economic, social, and subjective indicators. *Social Indicators Research*, 40, 189-216.
- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125, 276-302.
- Douthitt, R. A., Macdonald, M., Mullins, R. (1992), The Relationship between Measures of Subjective and Economic Well-Being: A New Look. *Social indicators Research*, 26, 407-422.
- Dubbert, P. M. (2002). Physical activity and exercise: Recent advances and current challenges. *Journal of Clinical and Consulting Psychology*, 70, 526–536.
- Duesenberry, J. S. (1949). *Income, saving and the theory of consumer behavior*. Harvard University Press, Cambridge, MA.
- Duncan, O. D. (1968). Social stratification and mobility: problems in the measure of trend. In E.B. Sheldon & W. E. Moore (Eds.), *Indicators of social change: concepts and measurements* (pp. 675-720). New York: Russell Sage Foundation.
- Easterlin, R. A. (1995). Will raising the incomes of all increase the happiness of all? *Journal of Economic Behavior and Organization*, 27, 35–47.
- Eid, M., & Diener, E. (2004). Global judgments of subjective well-being: Situational variability and long-term stability. *Social Indicator Research*, 65, 245-277.
- Elliott, R. (1994). Addictive consumption: Function and fragmentation in postmodernity. *Journal of Consumer Policy*, 17, 159–79.

- Ellsworth, P. C., & Smith, C. A. (1988). Shades of joy: Patterns of appraisal differentiating pleasant emotions. *Cognition and Emotion*, 2, 301-331.
- Emmons, R. A., Diener, E., & Larsen, R. J. (1986). Choice and avoidance of everyday situations and affect congruence: Two models of reciprocal interactionism. *Journal of Personality and Social Psychology*, 51, 815-826.
- Emmons, R. A., & McCullough, M. E. (2003). Counting blessings versus burdens: An experimental investigation of gratitude and subjective well-being in daily life. *Journal of Personality and Social Psychology*, 84, 377-389.
- Eshaghi, SR, Ramezani, M. A., Shahsanaee, A., & Pooya, A. (2006). Validity and Reliability of the Short Form- 36 Items Questionnaire as a Measure of Quality of Life in Elderly Iranian Population. *American Journal of Applied Sciences*, 3 (3), 1763-66.
- Evans, M.D.R., & Kelley, J. (2004). Effect of family structure on life satisfaction: Australian evidence. *Social Indicator Research*, 69, 303-349.
- Feather, N. T. (1990). *The psychological impact of unemployment*. New York: Springer-Verlag.
- Feist, G. J., Bodner, T. E., Jacobs, J. F., Miles, M., & Tan, V. (1995). Integrating top-down and bottom-up structural models of subjective well-being: A longitudinal investigation. *Journal of Personality and Social Psychology*, 68, 138-50.
- Festinger, L. (1954). A theory of social comparison processes, *Human Relations* 7, 117-40.
- Fiedler, K. (1988). Emotional mood, cognitive style, and behavior regulation. In K. Fiedler & J. Forgas (Eds.), *Affect, cognition, and social behavior* (pp. 100-119). Toronto: Hogrefe International.
- Fox, S. (2001). Emotional value: Creating strong bonds with your customers. *Personnel Psychology*, 54, 230-34.
- Frederick, S., & Loewenstein, G. (1999). Hedonic adaptation. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 302-329). New York: Russell Sage Foundation.
- Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology*, 2, 300-319.

- _____ (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56, 218-226.
- Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition and Emotions*, 19, 313-332.
- Fredrickson, B. L., Cohn, M. A., Coffey, K. A., Pek, J., & Finkel, S. M. (2008). Open hearts build lives: positive emotions, induced through loving-kindness meditation, build consequential personal resources. *Journal of Personality and Social Psychology*, 95, 1045 - 1062.
- Fredrickson, B. L., & Joiner, T. (2002). Positive emotions trigger upward spirals toward emotional well-being. *Psychological Science*, 13, 172-175.
- Frey, B. S., & Stutzer, A. (2000). Happiness, economy, and institutions. *The Economic Journal*, 110, 918-938.
- Friedman, R.S., & Förster, J. (2000). The effects of approach and avoidance motor actions on the elements of creative insight. *Journal of Personality and Social Psychology*, 79, 477-492.
- Frijda, N. H. (1986). *The emotions*. Cambridge, England: Cambridge University Press.
- Fryer, D. & Payne, R. (1986). Being unemployed: A review of the literature on the psychological experience of unemployment. In C. L. Cooper & I. Robertson (Eds.), *International Review of Industrial and Organizational Psychology* (pp. 235-278). Chichester: John Wiley.
- Fuentes, N., & Rojas, M. (2001). Economic theory and subjective well-being: Mexico. *Social Indicators Research*, 53, 289-314.
- George, J. M. (1992). The role of personality in organizational life: Issues and evidence. *Journal of Management*, 18, 185-213.
- Gershuny, J., & Halpin, B. (1996). Time use, quality of life, and process benefits. In A. Offer (ed.), *In pursuit of the Quality of Life* (pp. 188 - 210). Oxford, Clarendon Press.
- Gilbert, D. T., Lieberman, M., Morewedge, C. K., & Wilson, T. D. (2004). The peculiar longevity of things not so bad. *Psychological Science*, 15, 14-19.

- Goldberg, D. P. (1972). *The detection of psychiatric illness by questionnaire*. Oxford: Oxford University Press.
- Graef, R., McManama, G. S., & Csikszentmihalyi, M. (1981). In J. D. Claxton, C. D. Anderson, J. R. B. Richie, & G. H. G. McDougall (Eds.), *Consumers and energy conversation: International Perspectives on research and Policy Options*. Prager Publishers: New York
- Graham, C., Eggers, A., & Sukhtankar, S. (2004). Does happiness pay? An exploration based on panel data from Russia. *Journal of Economic Behavior and Organization*, 55, 319-42.
- Grayson, K., & Ambler, T. (1999). The Dark Side of Long Term Relationships in Marketing Services. *Journal of Marketing Research*, 36, 132 – 141.
- Greenberg, B. S. (1974). Gratifications of television viewing and their correlates for British children. In J. G. Blumler & E. Katz (Eds.), *The uses of mass communications: Current perspectives on gratifications research*. Beverly Hills: Sage.
- Gujarati, D. N. (2003). *Basic Econometrics*, 4th edition. McGraw-Hill Higher Education.
- Gurin, G., Veroff, J., & Feld, S. (1960). *Americans view their mental health*. New York: Basic Books.
- Hagtvedt, H., & Patrick, V. M. (2009). The broad embrace of luxury: Hedonic potential as a driver of brand extendibility. *Journal of Consumer Psychology*, 19 (4), Forthcoming.
- Hankins, M. (2008a). The factor structure of the twelve-item General Health Questionnaire (GHQ-12): the result of negative phrasing? *Clin Pract Epidemiol Ment Health*. 4, 10.
- _____ (2008b). The reliability of the twelve-item general health questionnaire (GHQ-12) under realistic assumptions. *BMC Public Health*, 8, 355.
- Hatcher, J. W., Hopkins, M., Anhalt, C., Voigt, L., Whirry-Achten, A., & Monnens, E. (2008). *33 Happy moments: A reflective look at the happy memories of college students*. Unpublished Manuscript.

- Havlena, W. J., & Holbrook, M. B. (1986). The varieties of consumption experience: Comparing two typologies of emotion in consumer behavior. *Journal of Consumer Research*, 13, 394-404.
- Headey, B., Veenhoven, R., & Wearing, A. (1991). Top-down versus bottom-up theories of subjective well-being. *Social Indicators Research*, 24, 81-100.
- Headey, B., & Wearing, A. (1989). Personality, life events, and subjective well-being: Towards a dynamic equilibrium model. *Journal of Personality and Social Psychology*, 57, 731-739.
- Higgins, E. T. (2006). Value from hedonic experience and engagement. *Psychological Review*, 113, 439–460.
- Hill, R. C., Griffiths, W. E., and Lim, G. C. (2008). *Principle of Econometrics*, 3rd edition. John Wiley & Sons, Inc.
- Hirschman, A. O. (1982). *Shifting involvements: private interests and public action*. Princeton, NJ: Princeton University Press.
- Hirschman, E. C., & Holbrook, M. B. (1982). Hedonic consumption: Emerging concepts, methods, and propositions. *Journal of Marketing*, 46, 92-101.
- Hirschman, E. C., & Stern, B. B. (1999). The roles of emotion in consumer research. *Advances in Consumer Research*, Vol: 26, 5-11. UT: Association for Consumer Research.
- Holbrook, M. B., Chestnut, R. W., Oliva, T. A., & Greenleaf, E. A. (1984). Play as a consumption experience: The roles of emotions, performance, and personality in the enjoyment of games. *Journal of Consumer Research*, 11, 728-739.
- Hopkinson, G. C., & Pujari, D. (1999). A factor analytic study of the sources of meaning in hedonic consumption. *European Journal of Marketing*, 33, 273-290.
- Hu, Y, Stewart-Brown, S., Twigg, L., & Weich, S. (2007). Can the 12-item General Health Questionnaire be used to measure positive mental health? *Psychological Medicine*, 37, 1005–13.
- Isen, A. M. (1993a). The influence of positive affect on cognitive organization: Some implications for consumer decision making in response to advertising. In A. Mitchell (Ed.), *Advertising exposure, memory, and choice* (pp. 239–258). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- _____ (1993b). Positive affect and decision making. In M. Lewis & J. Haviland

- (Eds.), *Handbook of emotion* (pp. 261–277). New York: Guilford.
- _____ (2000). Positive affect and decision making. In M. Lewis & J. Haviland-Jones (Eds.), *Handbook of emotions* (2nd ed., pp. 417–435). New York: Guilford.
- _____ (2001). An influence of positive affect on decision making in complex situations: Theoretical issues with practical implications. *Journal of Consumer Psychology*, 11, 75–85.
- Isen, A. M., Clark, M., & Schwartz, M. F. (1976). Duration of the effect of good mood on helping: "Footprints on the sands of time." *Journal of Personality and Social Psychology*, 34, 385-393.
- Izard, C. E. (1977). *Human emotions*. New York: Plenum.
- John, L. H. (2004). Subjective well-being in a multicultural urban population: structural, and multivariate analyses of the Ontario Health Survey Well-being Scale. *Social Indicators Research*, 68, 107-126.
- Kahana, J. A., Schnapp, B. J., & Silver, P. A. (1995). Kinetics of spindle pole body separation in budding yeast. *Proc. Natl. Acad. Sci. USA*, 92, 9707-9711.
- Kahn, B. E., & Isen, A. M. (1993). The influence of positive affect on variety seeking among safe, enjoyable products. *Journal of Consumer Research*, 20, 257-271.
- Kahneman, D., & Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica*, 47, 263-292.
- Kammann, R., & Flett, R. (1983). Affectometer 2: A scale to measure current level of general happiness. *Australian Journal of Psychology*, 35, 257-265.
- Kasser, T., & Ahuvia, A. (2002). Materialistic values and well-being in business students. *European Journal of Social Psychology*, 32, 137-146
- Kasser, T., & Ryan, R. M. (1996). Further examining the American dream: Differential correlates of intrinsic and extrinsic goals. *Personality and Social Psychology Bulletin*, 22, 280–287.
- Kasser, T., & Ryan, R. M. (2001). Be careful what you wish for: Optimal functioning and the relative attainment of intrinsic and extrinsic goals. In P. Schmuck & K. M. Sheldon (Eds.), *Life goals and well-being: Towards a positive psychology of human striving* (pp. 116–131). Göttingen: Hogrefe & Huber.

- Kau, A. K., Kwon, J., Tan, S. J., & Wirtz, J. (2000). The influence of materialistic inclination on values, life satisfaction and aspirations: an empirical analysis. *Social Indicators Research*, 49, 317–333.
- Kivetz, R., & Simonson, I. (2002a). Earning the right to indulge: Effort as a determinant of customer preferences toward frequency program rewards. *Journal of Marketing Research*, 39, 1547-7193.
- _____ (2002b). Self-control for the righteous: toward a theory of precommitment to indulgence. *Journal of Consumer Research*, 29, 199-219.
- Koivumaa-Honkanen, H., Honkanen, R., Viinamaeki, H., Heikkilae, K., Kaprio, J., & Koskenvuo, M. (2001). Life satisfaction and suicide: A 20-year follow-up study. *American Journal of Psychiatry*, 158, 433–439.
- Kozma, A., & Stones, M. J. (1980). The measurement of happiness: Development of the Memorial University of Newfoundland Scale of Happiness (MUNSH). *Journal of Gerontology*, 35, 906-912.
- Larsen, R. J. (1984). Theory and measurement of affect intensity as an individual difference characteristic. *Dissertation Abstracts International*, 85, 2297B University Microfilms No. 84-22112.
- Larsen, R. J., Diener, E., & Emmons, R. A. (1984). An evaluation of subjective well-being measures. *Social Indicators Research*, 17, 1-17.
- Lawton, M. P. (1975). The Philadelphia Geriatric Center Morale Scale: A revision. *Journal of Gerontology*, 30, 85-89.
- Layard, R. (2005), Secrets of happiness, available from <http://cep.lse.ac.uk/layard/RL362.pdf>.
- Lee, D. J., Sirgy, M. J., Larsen, V., & Wright, N. D. (2002). Developing a subjective measure of consumer well-being. *Journal of Macromarketing*, 22 (2), 158-169.
- Lee, A., & Sternthal, B. (1999). The effects of positive mood on memory. *Journal of Consumer Research*, 26, 115–127.
- Leelakulthanit, O., Day, R., & Walters, R. (1991). Investigating the relationship between marketing and overall satisfaction with life in a developing country. *Journal of Macromarketing*, 11 (spring), 3-23.
- Levy, S. J. (1959). Symbols for Sale. *Harvard Business Review*, 37, 117-19.

- _____ (1964). Symbolism and life style. In S. A. Greyser (Eds.), *Toward Scientific Marketing* (pp. 140-50). Chicago: American Marketing Association.
- Lewinsohn, S., & Mano, H. (1993). Multi-attribute choice and affect: The influence of naturally occurring and manipulated moods on choice processes. *Journal of Behavioral Decision Making*, 6 (1), 33-51.
- Linville, P. W., & Fischer, G. W. (1991). Preferences for Separating or Combining Events. *Journal of Personality and Social Psychology*, 60, 5-23.
- Lu, L., & Argyle, M. (1991). Happiness and cooperation. *Personality and Individual Differences*, 12, 1019–1030.
- Luce, M. F., Bettman, J. R., & Payne, J. W. (2001). *Emotional decisions: Trade-off difficulty and coping in consumer choice*. Chicago, IL: The University of Chicago Press.
- Lucas, R. E. (2001). Pleasant affect and sociability: Towards a comprehensive model of extraverted feelings and behaviors. *Dissertation Abstracts International*, 61 (10-B), 5610.
- Lykken, D., & Tellegen, A. (1996). Happiness is a stochastic phenomenon. *Psychological Science*, 7, 186-189.
- Lyubomirsky, S. (2001). Why are some people happier than others? The role of cognitive and motivational processes in well-being. *American Psychologist*, 56, 239–249.
- Lyubomirsky, S., & Dickerhoof, R. (2005). Subjective well-being. In J. Worrell (Ed.), *Handbook of girls and women's psychological health: Gender and well-being across the life span* (pp. 166-174). New York: Oxford University Press.
- Lyubomirsky, S., & Dickerhoof, R. (in press). A construal approach to increasing happiness. In J. Tangney & J. E. Maddux (Eds.), *Social psychological foundations of clinical psychology*. New York: Guilford Press.
- Lyubomirsky, S., Dickerhoof, R., Boehm, J. K., & Sheldon, K. M. (2008). *Becoming happier takes both a will and a proper way: Two experimental longitudinal interventions to boost well-being*. Manuscript under review.
- Lyubomirsky, S., King, L., & Diener, E. (2005). The Benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, 13, 513-37.
- Lyubomirsky, S., Sheldon, K. M., & Schkade, D. (2005). Pursuing happiness: The

- architecture of sustainable change. *Review of General Psychology*, 9, 111-131.
- Lyubomirsky, S., Tkach, C., & DiMatteo, M. R. (2006). What are the differences between happiness and self-esteem? *Social Indicators Research*, 78, 363-404.
- Marks, G. N., & Fleming, N. (1999). Influences and consequences of well-being among Australian young people: 1980-1995. *Social Indicators Research*, 46, 301-324.
- Mastekaasa, A. (1994). Marital status, distress, and well-being: An international comparison. *Journal of Comparative Family Studies*, 25, 183-205.
- Mattila, A. S., & Enz, C. A. (2002). The role of emotions in service encounters. *Journal of Service Research*, 4, 268-277.
- McCracken, G. (1988). *The culture of consumption*. Bloomington: Indiana University Press.
- McCrae, R. R., & Costa, P. T. (1990). *Personality in adulthood*. New York: Guilford Press.
- Michalos, A. C. (1985). Multiple discrepancies theory (MDT). *Social Indicators Research*, 16, 347-431.
- Mishra, S. (1992). Leisure activities and life satisfaction in old age: A case study of retired government employees living in urban areas. *Activities, Adaptation and Aging*, 16, 7-26.
- Montazeri, A., Goshtasebi, A., Vahdaninia, M., & Grandek, B. (2005). The short form health survey (SF-36): Translation and validation study of Iranian version. *Quali. Life. Res.*, 14, 875-82.
- Mookherjee, D. (1992). The economics of enforcement. In M. K. Rakshit (Eds.), *Essays in Honour of Tapas Majumdar*. New Delhi: Oxford University Press.
- Moriwaki, S. Y. (1974). The Affect Balance Scale: A validity study with aged samples. *Journal of Gerontology*, 29, 73-78.
- Morris, J. N., & Sherwood, S. (1975). A retesting and modification of the Philadelphia Geriatric Center Morale Scale. *Journal of Gerontology*, 30, 77-84.
- Myers, D. G. (1992). *The Pursuit of Happiness: Who is Happy--and why*. W. Morrow.
- Myers, D. G. (2000). The funds, friends, and faith of happy people. *American Psychologist*, 55, 56-67.

- Nakano, N., MacDonald, M., & Douthitt, R. (1995). Toward consumer well-being: Consumer socialization effects of work experience. In M. J. Sirgy & A. C. Samli (Eds.), *New Dimensions in Marketing/Quality-of-Life Research* (pp. 175-198). Westport, CT: Quorum Books.
- Neugarten, B. L., Havighurst, R. J., & Tobin, S. S. (1961). The measurement of life satisfaction. *Journal of Gerontology*, *16*, 134-143.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric Theory* (3rd ed.). New York: McGraw Hill.
- Okada, E. M. (2005). Justification effects on consumer choice of hedonic and utilitarian goods. *Journal of Marketing Research*, *42*, 43-53.
- Okun, M. A., & George, L. K. (1984). Physician- and self-ratings of health, neuroticism and subjective well-being among men and women. *Personality and Individual Differences*, *5*, 533-539.
- Okun, M. A., Stock, W. A., Haring, M. J., & Witter, R. A. (1984). Health and subjective well-being: a meta-analysis. *International journal of aging & human development*, *19*, 111-32.
- Oropesa, R. S. (1995). Consumer possession, consumer passions, and subjective well-being. *Sociological Forum*, *10*, 215-44.
- Ortony, A., Clore, G. L., & Collins, A. (1988). *The cognitive structure of emotions*. Cambridge, England: Cambridge University Press.
- Oswald, A. J. (1997). Happiness and economic performance. *Economic Journal*, *107*, 1815-1831.
- Ozari, G. (2007). Cheap thrills. Available from http://www.demodirt.com/happiness_simple_pleasures.html.
- Pavot, W., & Diener, E. (1993). Review of the satisfaction with life scale. *Psychological Assessment*, *5*, 164-172.
- Porritt, J. (2003). *Redefining prosperity: resource productivity, economic growth and sustainable development*. London: Sustainable Development Commission.
- Powdthavee, N. (2007). Economics of happiness: A review of literature and applications, Forthcoming in *Chulalongkorn Journal of Economics*, available from http://www.powdthavee.co.uk/resources/Subjective+Well-Being+Research_revis

ed.pdf.

- Richins, M. L. (1995). Social comparison, advertising, and consumer discontent. *American Behavioral Scientist*, 38, 593-608.
- Richins, M., & Dawson, S. (1992). A consumer values orientation for materialism and its measurement: scale development and validation. *Journal of Consumer Research*, 19, 303-316.
- Ryff, C. D. (1989). Happiness is everything or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57, 1069-1081.
- Samli, A., Sirgy, M. J., & Meadow, H. L. (1987). Measuring marketing contribution to quality of life. In A. C. Samli (Eds.), *Marketing and quality of life interface* (pp. 3-14). Westport, CT: Quorum Books.
- Sarason, I. G., Potter, E. H., & Sarason, B. R. (1986). Recording and recall of personal events: Effects on cognitions and behavior. *Journal of Personality and Social Psychology*, 51, 347-356.
- Sastre, M. T. M. (1999). Lay conceptions of well-being and rules used in well-being judgments among young, middle-aged, and elderly adults. *Social Indicator Research*, 47, 203-232.
- Schellenberg, J.A., & Blevins, G. A. (1973). How quickly does the smile of same fortune fade? *Psychological Reports*, 33, 72-74.
- Schor, J. B. (1999). *The overspent American: Why we want what we don't need*. New York : HarperPerennial.
- Schwarz, N. (1990). Feelings as information: Informational and motivational functions of affective states. In E.T. Higgins & R. Sorrentino (Eds.), *Handbook of motivation and cognition: Foundations of social behavior* (Vol. 2, pp. 527-561). New York: Guilford Press.
- Schwarz, N. (2002). Situated cognition and the wisdom of feelings: Cognitive tuning. In L. Feldman Barrett & P. Salovey (Eds.), *The wisdom in feelings* (pp.144-166). New York: Guilford.
- Schwarz, N., & Bless, B. (1991). Happy and mindless, but sad and smart? The impact of affective states on analytic reasoning. In J. Forgas (Ed.), *Emotion and social judgment* (pp. 55-71). Oxford: Pergamon.

- Schwartz, B., Ward, A. H., Monterosso, J., Lyubomirsky, S., White, K., & Lehman, D. (2002). Maximizing versus satisficing: Happiness is a matter of choice. *Journal of Personality and Social Psychology*, *83*, 1178–1197.
- Scitovsky, T. (1976). *The Joyless Economy*. New York: Oxford University Press.
- _____ (1986). *Human Desire and Economic Satisfaction: Essays on the Frontiers of Economics*. New York: New York University Press.
- Sedikides, C., Gregg, A. P., Cisek, S., & Hart, C. M. (2007). The I that buy: Narcissists as consumers. *Journal of Consumer Psychology*, *17*, 254-257.
- Seligman, M. E. P., Rashid, T., & Parks, A. C. (2006). Positive psychotherapy. *American Psychologist*, *61*, 774-788.
- Seligman, M. E. P., Steen, T. A., Park, N., & Peterson, C. (2005), Positive psychology progress: empirical validation of interventions. *American Psychologist*, *60*, 410-421.
- Sheldon, K. M., & Houser-Marko, L. (2001). Self-concordance, goal-attainment, and the pursuit of happiness: Can there be an upward spiral? *Journal of Personality and Social Psychology*, *80*, 152–165.
- Sheldon, K. M., & Lyubomirsky, S. (2006). Achieving sustainable gains in happiness: Change your actions, not your circumstances. *Journal of Happiness Studies*, *7*, 55-86.
- Sheldon, K. M., & Lyubomirsky, S. (2007). Is it possible to become happier? (And if so, how?). *Social and Personality Psychology Compass*, *1/1*, 129–145.
- Shields, M. A., & Price, S. W. (2005). Exploring the economic and social determinants of psychological well-being and perceived social support in England. *J. R. Statist. Soc. A*, *168*, 513-537.
- Shin, D. C., & Johnson, D. M. (1978). Avowed happiness as an overall assessment of the quality of life. *Social Indicators Research*, *5*, 475-492.
- Shmotkin, D. (2005), Happiness in the face of adversity: Reformulating the dynamic and modular bases of subjective well-being. *Review of General Psychology*, *9*, 291–325.
- Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: new procedures and recommendations. *Psychological Methods*, *7*, 422-445.

- Siegrist, J. (2003). Subjective well-being: new conceptual and methodological developments in health-related social sciences. ESF SCSS Exploratory Workshop on 'Income, Interactions and Subjective Well-being' Paris, 25-26 September 2003.
- Sirgy, J. (1982). Self-concept in consumer behavior: a critical review. *Journal of Consumer Research*, 9, 287-300.
- _____(1998). Materialism and quality of life. *Social Indicators Research*, 43, 227-260.
- Sirgy, M. J., Meadow, H. L., & Samli, A. C. (1995). Past, present, and future: An overview of Quality of Life research in marketing. In M. J. Sirgy & A. C. Samli (Eds.), *New Dimensions in Marketing/Quality-of-Life Research* (pp. 335-64). Westport, CT: Quorum Books.
- Sirgy, M. J., Samli, A. C., & Meadow, H. L. (1982). The interface between quality of life and marketing; a theoretical framework. *Journal of Marketing & Public Policy*, 1, 69-84.
- Slater, S. F., & Narver, J. C. (1994). Does competitive environment moderate the market orientation-performance relationship? *Journal of Marketing*, 58, 46- 55.
- Strahilevitz, M., & Myers, J. G. (1998). Donations to charity as purchase incentives: how well they work may depend on what you are trying to sell. *Journal of Consumer Research*, 24, 434-46.
- Stutzer, A., & Frey, B. S. (2003). *Reported subjective well-being: A challenge for economic theory and economic policy*. CREMA Working Paper Series 2003-07, Center for Research in Economics, Management and the Arts (CREMA).
- Stutzer, A. & Frey, B. S. (2007). Commuting and Life Satisfaction in Germany, accessed from www.bsfrey.ch/articles/456_07.pdf on September 15, 2009
- Suh, E., Diener, E., & Fujita, F. (1996). Events and subjective well-being: Only recent events matter. *Journal of Personality and Social Psychology*, 70, 1091-102.
- Suranyi-Unger, T. (1981). Consumer behavior and consumer well-being: An economist's digest. *Journal of Consumer Research*, 8, 132-43.
- Tait, R. J., French, D. J., & Hulse, G. K. (2003) Validity and psychometric properties of the General Health Questionnaire-12 in young Australian adolescents. *Australian and New Zealand Journal of Psychiatry*, 37, 374-381

- Tatzel, M. (2003). The art of buying: Coming to terms with money and materialism. *Journal of Happiness Studies*, 4, 405–435.
- Taylor, M. F. (ed). With Brice, J., Buck, N., & Prentice-Lane, E. (2001). *British household panel survey user manual volume a: Introduction, technical report and appendices*. Colchester: University of Essex.
- Taylor, J. E., Carlos Poston, W. S., Keith Haddock, C., Blackburn, G. L., Heber, D., Heymsfield, S.B., & Foreyt, J.P. (2003). Psychometric characteristics of the General Well-Being Schedule (GWB) with African–American women. *Quality of Life Research*, 12(1), 31-39.
- Tice, D. M., & Bratslavsky, E. (2000). Giving in to feel good: The place of emotion regulation in the context of general self-control. *Psychological Inquiry*, 11, 149-159.
- Tkach, C., & Lyubomirsky, S. (2006). How do people pursue happiness?: Relating personality, happiness-increasing strategies, and well-being. *Journal of happiness studies*, 7, 183-225.
- Underwood, B., & Framing, W. J. (1980). The mood survey: A personality measure of happy and sad moods. *Journal of Personality Assessment*, 44, 404-414.
- Veenhoven, R. (1991). Is happiness relative? *Social Indicators Research*, 24, 1-34.
- _____ (1994). *World database of happiness: Correlates of happiness: 7837 findings from 603 studies in 69 nations 1911–1994 (Vols. 1–3)*. Rotterdam, The Netherlands: Erasmus University.
- _____ (1996). Developments in satisfaction-research. *Social Indicators Research*, 37, 1-46.
- Veenhoven, R., & Ehrhardt, J. (1995). The Cross-National Pattern of Happiness: Test of Predictions Implied in Three Theories of Happiness. *Social Indicators Research*, 43, 33-86.
- Wachtel, P. L., & Blatt, S. J., (1990). Perceptions of economic needs and of anticipated future income. *Journal of Economic Psychology*, 11, 403–415.
- Wang, G., Dou, W., & Zhou, N. (2008). Consumption attitudes and adoption of new consumer products: a contingency approach. *European Journal of Marketing*, 42, 238-254.
- Warr, P., & Payne, R. (1982). Experience of strain and pleasure among British adults.

Social Science and Medicine, 16, 1691–1697.

Watson, D. (2000). *Mood and temperament*. New York: Guilford Press.

Watson, D., Clark, L. A., Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54, 1063-1070.

Wegener, D.T., & Petty, R. E. (1994). Mood management across affective states: The hedonic contingency hypothesis. *Journal of Personality and Social Psychology*, 66, 1034-1048.

Weiss, H. M., Nicholas, J. P., & Daus, C. S. (1999). An examination of the joint effects of affective experiences and job beliefs on job satisfaction and variations in affective experiences over time. *Organizational Behavior and Human Decision Processes*, 78, 1–24.

Williams, T. P., & Lee, A. Y. (2006). Understanding consumer enjoyment and happiness: Session overview. *Advances in Consumer Research*, Vol: 33, 218. UT: Association for Consumer Research.

Wilson, W. (1967). Correlates of avowed happiness. *Psychological Bulletin*, 67, 294–306.

Winefield, A. H., Tiggemann, M., Winefield, H. R., & Goldney, R. D. (1993). *Growing up with Unemployment: A Longitudinal Study of its Psychological Impact*. London and New York: Routledge.

Wong, N. Y. (1997). Suppose you own the world and no one knows? Conspicuous consumption, materialism, and self. In M. Brooks & D.J. MacInnis (Eds.), *Advances in Consumer Research* Vol: 24, 107–203. Provo, UT: Association for Consumer Research.

Wood, S. L., & Rettman, J. R. (2007). Predicting happiness: How normative feeling rules influence (and even reverse) durability bias. *Journal of Consumer Psychology*, 17, 188-201.

Wood, V., Wylie, M. L., & Sheafor, B. (1969). An analysis of a short self-report measure of life satisfaction: Correlation with rater judgments. *Journal of Gerontology*, 24, 465-469.

Zaltman, G., & Wallendorf, M. (1979). *Consumer Behavior: Basic Findings and Management Implications*. New York: John Wiley.

Zautra, A., & Hempel, A. (1984). Subjective well-being and psychological health: a narrative literature review with suggestions for future research. *International Journal of Aging and Human Development*, 19, 95-110.