

**CONSISTENCY OF CONSUMERS' SEQUENTIAL CHOICES
IN THE PRESENCE OF CONFLICTING GOALS**

TUĞBA TUĞRUL

JUNE 2011

**CONSISTENCY OF CONSUMERS' SEQUENTIAL CHOICES
IN THE PRESENCE OF CONFLICTING GOALS**

A THESIS SUBMITTED TO
THE GRADUATE SCHOOL OF SOCIAL SCIENCES
OF
IZMIR UNIVERSITY OF ECONOMICS

BY

TUĞBA TUĞRUL

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE
OF
DOCTOR OF PHILOSOPHY
IN
THE GRADUATE SCHOOL OF SOCIAL SCIENCES

JUNE 2011

Approval of the Graduate School of Social Sciences

Prof. Dr. Cengiz EROL

Director

I certify that this thesis satisfies all the requirements as a thesis for the degree of Doctor of Philosophy.

Prof. Dr. Serdar ÖZKAN

Head of Department

This is to certify that we have read this thesis and that in our opinion it is full adequate, in scope and quality, as a thesis for the degree of Doctor of Philosophy.

Prof. Dr. Tunçdan BALTACIOĞLU

Supervisor

Examining Committee Members

Prof. Dr. Tunçdan BALTACIOĞLU

Prof. Dr. Kemal KURTULUŞ

Prof. Dr. Okan TUNA

Asst. Prof. Dr. Melike D. KAPLAN

Asst. Prof. Dr. Nilgün GÜRKAYNAK

ABSTRACT

CONSISTENCY OF CONSUMERS' SEQUENTIAL CHOICES IN THE PRESENCE OF CONFLICTING GOALS

TUĞRUL, Tuğba

Ph.D., Department of Business Administration
Graduate School of Social Sciences

Supervisor: Prof. Dr. Tunçdan BALTACIOĞLU

June 2011, 201 pages

Although consumer choices received a great deal of attention over the years in consumer research and marketing literature, relatively little attention has been given to consumer choices in the context of an ongoing sequence. Hence, this thesis aims at enriching our understanding of consumers' consistency across their sequential choices in the presence of conflicting goals.

Building on the extant goal-directed sequential choices, goal-derived categorization and consumption-related stress literature, the present study determines the conditions under which consumers' likelihood of being consistent across their sequential

choices are influenced by the levels of (1) trade-off difficulty between two active and conflicting goals in an initial choice, (2) stress experienced in making that initial choice, and (3) typicality of the subsequent choice to a goal-derived choice category guiding the process.

Two experimental studies that employed a total of 264 participants attempted to provide evidence for the predictions. The research findings of the first study revealed that consumers tend to be consistent across their sequential choices when these choices involve a low level of trade-off difficulty between two active and conflicting goals. In addition, it was found that when making a choice that involves a low level of trade-off difficulty compared to high one, consumers are likely to feel less stress. Moreover, findings illustrated that consumers tend to be inconsistent across their sequential choices when these choices involve a high level of trade-off difficulty, partially because consumers are likely to feel more stress during making the initial choice. The findings of the second study generalized the proposed effects to another conflicting goal pairs, and also demonstrated that in low trade-off difficulty choice situations, consumers are less likely to be consistent across their sequential choices when the subsequent choice typicality level was perceived as low rather than high.

Keywords: Sequential Consumer Choices, Trade-Off Difficulty, Stress, Goal-Derived Categorization, Typicality

ÖZET

TÜKETİCİLERİN BİRBİRİNİ İZLEYEN TERCİHLERİNİN ÇELİŞEN HEDEFLER KARŞISINDAKİ TUTARLILIĞI

TUĞRUL, Tuğba
İşletme Doktora Programı

Tez Danışmanı: Prof. Dr.Tunçdan BALTACIOĞLU

Haziran 2011, 201 sayfa

Her ne kadar tüketici tercihleri yıllar boyunca tüketici araştırmaları ve pazarlama literatürün yoğun ilgisini çekmiş olsa da, bu konu birbirini izleyen tercihler bağlamında nispeten daha az ilgi görmüştür. Buradan hareketle, bu tezin amacı tüketicilerin birbirini izleyen tercihlerinin çelişen hedefler karşısındaki tutarlılığı hakkındaki anlayışımızı zenginleştirmektir.

Bu çalışma, hedefe-yönelik birbirini izleyen tercihler, hedef kaynaklı kategorizyon, ve tüketim ile ilgili stres literatürlerine dayanarak, tüketicilerin birbirini izleyen tercihleri boyunca tutarlı olma ihtimallerinin (1) iki aktif ve çelişen hedeften birinden vazgeçmeyi gerektiren ilk tercihin zorluk seviyesi, (2) bu tercihi yaparken hissedilen

stres düzeyi, ve (3) bir sonraki tercihin sürece yön veren hedef kaynaklı tercihler kategorisine tipikliğinin seviyesi tarafından nasıl etkilendiğini belirler.

Toplam 264 deneğin katıldığı iki deneysel araştırma ile tahminlere ispatlar sunulmaya çalışılmıştır. İlk araştırmanın sonuçları, birbirini izleyen tüketici tercihlerinde, ve iki aktif ve çelişen hedeften birinden vazgeçmenin zorluk seviyesinin düşük olduğu durumlarda, tüketicilerin bu tercihleri boyunca tutarlı olma eğiliminde olduklarını göstermiştir. Buna ek olarak, tüketicilerin bu hedeflerden birinden vazgeçmenin zorluk seviyesinin düşük olduğu bir tercih yaparken, yüksek olduğu bir tercihe nazaran daha az stres hissetme eğiliminde oldukları belirlenmiştir. Bunun da ötesinde, sonuçlar birbirini izleyen tüketici tercihlerinde ve hedeflerden birinden vazgeçmenin zor olduğu durumlarda, tüketicilerin bu tercihleri boyunca tutarsız olma eğiliminde oldukları, ve bunun da kısmen tüketicilerin önceki tercihi yaparken daha fazla stres hissetme ihtimallerinden kaynaklandığını göstermiştir. İkinci çalışma ise birinci çalışmanın sonuçlarını bir başka çelişen hedefler ikilisine genelleştirir, ve ayrıca tüketicilerin birbirini izleyen tercihleri boyunca tutarlı olma ihtimallerinin, hedeflerden birinden vazgeçmenin kolay olduğu durumlarda, birinci tercihten sonra gelen tercihin tipiklik düzeyinin düşük algılandığı durumlarda azaldığını göstermiştir.

Anahtar Kelimeler: Birbirini İzleyen Tüketici Tercihleri, Trade-off Zorluğu, Stres, Hedef-Kaynaklı Kategorizasyon, Tipiklik

To my parents,

Sevda and Mustafa ÖRTEN

ACKNOWLEDGMENTS

First of all, I would like to express my appreciation to my advisor, Prof. Dr. Tunandan Baltacığolu for his support and assistance from the beginning to the end of the PhD program. Special thanks go to one of the other committee member, Prof. Dr. Kemal Kurtuluş for his ideas, suggestions and comments throughout the PhD program and the thesis process. I would also like to extend my thanks to the other committee member, Asst. Prof. Dr. Melike Demirbağ Kaplan for her suggestions.

Then, I would like to offer my sincere thanks to Prof. Dr. A. Fuat Fırat for his invaluable guidance, encouragement, ideas and comments during my PhD research studies at University of Texas Pan-American.

I would also like to express my sincere gratitude to my parents, Sevda and Mustafa rten for their endless love, unconditional support and for many other reasons that I could not put into words. This thesis is dedicated to them, just like everything I do in my life.

In addition, I would like to thank to my dear sister, Sezin Sivri and my brother-in-law, Fadıl Sivri for their encouragement and belief in me during my academic career. Besides, I would like to thank to my friends and colleagues, Bengü Sevil Oflaç and Işık zge Yumurtacı for their motivation and suggestions, especially when I felt exhausted.

Last, but certainly not the least, I am also grateful to my husband, Kayhan Tuđrul, for his enduring support, endless confidence and patience. Beyond this study, nothing in my life would be possible without his love and presence.

Tuđba Tuđrul

Izmir, June 2011

TABLE OF CONTENTS

ABSTRACT	III
ÖZET	V
ACKNOWLEDGMENTS	VII
TABLE OF CONTENTS	X
LIST OF TABLES	XIV
LIST OF FIGURES	XIX
CHAPTER I: INTRODUCTION	1
1.1. OBJECTIVE AND SIGNIFICANCE OF THE STUDY	3
1.2. RESEARCH QUESTIONS OF THE STUDY	5
1.3. STRUCTURE OF THE THESIS	6
CHAPTER II: MULTIPLE GOAL PURSUITS IN SEQUENTIAL CONSUMER CHOICES	9
2.1. SEQUENTIAL CHOICES IN THE PRESENCE OF CONFLICTING GOALS	9
2.2. THE IMPACT OF TRADE-OFF DIFFICULTY ON SEQUENTIAL CHOICES	17
2.3. THE IMPACT OF GOAL-DERIVED CATEGORIES ON SEQUENTIAL CHOICES	22

CHAPTER III: THE EFFECTS OF STRESS ON GOAL-DIRECTED CONSUMER BEHAVIORS	32
3.1. EMOTION REGULATION THEORY AND EMOTION REGULATORY GOALS	32
3.2. THE ROLE OF EMOTIONS IN CONSUMER BEHAVIOR	37
3.3. STRESS AND GOAL-DIRECTED CONSUMER BEHAVIORS	43
3.3.1. A Brief Review of Stress Theory	43
3.3.2. The Effects of Stress on Consumer Behaviors	47
CHAPTER IV: METHODOLOGY	54
4.1. RESEARCH MODEL AND HYPOTHESES	54
4.2. RESEARCH DESIGN	56
4.2.1. Samples	57
4.2.2. Experimental Design	59
4.2.3. Operationalization of Variables	63
4.2.3.1. Operationalization of the Independent Variable	63
4.2.3.2. Operationalization of the Moderating Variable	65
4.2.3.2. Operationalization of the Mediating Variable	68
4.2.3.4. Operationalization of the Dependent Variable	70
4.3. STIMULUS MATERIALS	70
4.4. GENERAL PROCEDURES	76
4.5. DATA ANALYSIS	78
4.6. PRELIMINARY STUDIES AND THE FINDINGS	80

4.6.1. Pretest I	82
4.6.2. Pretest II	87
CHAPTER V: ANALYSIS AND RESULTS	92
5.1. SAMPLES	92
5.1.1. Demographic Characteristics of Samples	93
5.1.2. Preliminary Analyses	95
5.1.2.1. Matching Sample Checks	95
5.1.2.2. Sample Adequacy Checks	98
5.2. STUDY I	104
5.2.1. Test for Sequential Effects on Choice Consistency	104
5.2.1.1. Control Test for the Effects of Demographics	107
5.2.1.1. Control Test for the Effect of Goal Priming	109
5.2.2. Test for the Moderating Effect of the Gender of the Participants	112
5.2.3. Stress Ratings of Initial Decision	113
5.2.4. The Effect of Stress on Sequential Choice Consistency	115
5.2.5. Test for the Mediating Effect of Stress	117
5.3. STUDY II	121
5.3.1. Generalize Sequential Effects to Goals Other than Pleasure	121
5.3.1.1. Test for Sequential Effects on Choice Consistency	122
5.3.1.2. Test for the Moderating Effect of the Gender of the Participants	127
5.3.1.3. Stress Ratings of Initial Decision	128
5.3.1.4. The Effect of Stress on Sequential Choice Consistency	129

5.3.1.5. Test for the Mediating Effect of Stress	131
5.3.2. Test for the Moderating Effect of Typicality	133
5.4. SUMMARY OF RESULTS	136
CHAPTER VI: DISCUSSION	138
6.1. GENERAL DISCUSSION AND THEORETICAL CONTRIBUTIONS	138
6.2. PRACTICAL IMPLICATIONS	142
6.3. LIMITATIONS	147
6.4. DIRECTIONS FOR FUTURE RESEARCH	148
REFERENCES	153
APPENDICES	177
APPENDIX I: STUDY I QUESTIONNAIRE EXAMPLE	177
APPENDIX II: STUDY II QUESTIONNAIRE EXAMPLES	180
APPENDIX III: PRETEST I QUESTIONNAIRE EXAMPLE	182
APPENDIX IV: PRETEST II QUESTIONNAIRE EXAMPLE	184
APPENDIX V: DETAILED STATISTICS FOR SAMPLE I	186
APPENDIX VI: DETAILED STATISTICS FOR SAMPLE II	190
VITA	201

LIST OF TABLES

Table 1. Reliability Statistics of the Perceived Trade-Off Difficulty Scale for Pretest I	83
Table 2. Item Statistics of the Perceived Trade-Off Difficulty Scale for Pretest I	83
Table 3. Descriptive Statistics of Perceived Trade-Off Difficulty Groups for Pretest I	84
Table 4. Mann-Whitney Test Statistics of Perceived Trade-Off Difficulty Groups for Pretest I	84
Table 5. Descriptive Statistics of Low Trade-Off Difficulty Subgroups for Pretest I	85
Table 6. Mann-Whitney Test Statistics of Perceived Trade-Off Difficulty for Low Trade-Off Difficulty Subgroups for Pretest I	85
Table 7. Descriptive Statistics of Perceived Realism for Pretest I	86
Table 8. Mann-Whitney Test Statistics of Perceived Realism for Pretest I	86
Table 9. Reliability Statistics of the Perceived Trade-Off Difficulty Scale for Pretest II.....	87
Table 10. Item Statistics of the Perceived Trade-Off Difficulty Scale for Pretest II	87
Table 11. Descriptive Statistics of Perceived Trade-Off Difficulty Groups for Pretest II	88
Table 12. Mann-Whitney Test Statistics of Perceived Trade-Off Difficulty Groups for Pretest II.....	88
Table 13. Descriptive Statistics of Perceived Trade-Off Difficulty Subgroups for Pretest II	88
Table 14. Mann-Whitney Test Statistics of Perceived Trade-Off Difficulty Subgroups for Pretest II	89

Table 15. Reliability Statistics of the Perceived Subsequent Choice	
Typicality Scale	89
Table 16. Item Statistics of the Perceived Subsequent Choice	
Typicality Scale.....	89
Table 17. Descriptive Statistics of Perceived Subsequent Choice	
Typicality Groups	90
Table 18. Mann-Whitney Test Statistics of Perceived Subsequent Choice	
Typicality Groups	90
Table 19. Descriptive Statistics of Perceived Realism for Pretest II	90
Table 20. Mann-Whitney Test Statistics of Perceived Realism for Pretest II	91
Table 21. Demographic Characteristics of the Samples	94
Table 22. Findings of the Matching Sample Checks	97
Table 23. Cross-tabulation of Trade-off Difficulty Groups by Sequential Choice Consistency for Sample I.....	99
Table 24. Chi-square Test of Independence between Trade-off Difficulty Groups and Sequential Choice Consistency for Sample I	99
Table 25. Cross-tabulation of Trade-off Difficulty Groups by Sequential Choice Consistency for Sample II.....	100
Table 26. Chi-square Test of Independence between Trade-off Difficulty Groups and Sequential Choice Consistency for Sample II	101
Table 27. Cross-tabulation of Subsequent Choice Typicality Groups by Sequential Choice Consistency	101
Table 28. Chi-square Test of Independence between Subsequent Choice Typicality Groups and Sequential Choice Consistency	101
Table 29. Cross-tabulation of Trade-off Difficulty Groups by Subsequent Choice Typicality and Sequential Choice Consistency	102
Table 30. Chi-square Test of Independence between Trade-off Difficulty, Subsequent Choice Typicality and Sequential Choice Consistency	103
Table 31. Omnibus Tests of Model Coefficients for Trade-Off Difficulty Study I.....	105

Table 32. R Square Statistics for Trade-Off Difficulty in Study I	106
Table 33. Correctly Classified Cases for Sequential Choice Consistency in Study I	106
Table 34. Logistic Regression Predicting Likelihood of Sequential Choice Consistency from Trade-off Difficulty in Study I	106
Table 35. Omnibus Tests of Model Coefficients for Demographics in Study I	108
Table 36. Logistic Regression Predicting Likelihood of Sequential Choice Consistency from Demographics in Study I	108
Table 37. Cross-tabulation of Sequential Choice Consistency by Low Trade-off Difficulty Goal Priming Groups for Sample I	110
Table 38. Chi-square Test of Independence between Low Trade-off Difficulty Goal Priming Groups for Study I	110
Table 39. Omnibus Tests of Model Coefficients for Low Trade-off Difficulty Goal Priming in Study I	111
Table 40. R Square Statistics for Low Trade-off Difficulty Goal Priming in Study I	111
Table 41. Logistic Regression Predicting Likelihood of Sequential Choice Consistency from Low Trade-off Difficulty Goal Priming in Study I	111
Table 42. Variables not Included in the Logistic Regression Predicting Likelihood of Sequential Choice Consistency from Gender of the Respondents in Study I	112
Table 43. R Square Statistics for Trade-off Difficulty and Stress in Study I	113
Table 44. ANOVA Statistics for Trade-off Difficulty and Stress in Study I	113
Table 45. Regression Coefficients and Confidence Intervals of Trade-off Difficulty for Study I	114
Table 46. Omnibus Tests of Model Coefficients for Stress in Study I	115
Table 47. R Square Statistics for Stress in Study I	116
Table 48. Correctly Classified Cases for Stress in Study I	116I

Table 49. Logistic Regression Predicting Likelihood of Sequential Choice Consistency from Stress for Study I	117
Table 50. Omnibus Tests of Model Coefficients for Trade-off Difficulty and Stress in Study I	118
Table 51. R Square Statistics Trade-off Difficulty and Stress in Study I	119
Table 52. Logistic Regression Predicting Likelihood of Sequential Choice Consistency from Trade-Off Difficulty and Stress for Study I	119
Table 53. Regression Equations of Partial Mediating Effect of Stress	120
Table 54. Omnibus Tests of Model Coefficients for Trade-Off Difficulty in Study II	123
Table 55. R Square Statistics for Trade-Off Difficulty in Study II	123
Table 56. Correctly Classified Cases for Sequential Choice Consistency in Study II	123
Table 57. Logistic Regression Predicting Likelihood of Sequential Choice Consistency from Trade-off Difficulty for Study II	123
Table 58. Omnibus Tests of Model Coefficients for Demographics in Study II	124
Table 59. Logistic Regression Predicting Likelihood of Sequential Choice Consistency from Demographics for Study II	124
Table 60. Cross-tabulation of Sequential Choice Consistency by Low Trade-off Difficulty Goal Priming Groups for Sample II	125
Table 61. Chi-square Test of Independence between Low Trade-off Difficulty Goal Priming Groups and Sequential Choice Consistency for Study II	126
Table 62. Omnibus Tests of Model Coefficients for Low Trade-off Difficulty Goal Priming in Study II	126
Table 63. R Square Statistics for Low Trade-off Difficulty Goal Priming in Study II	126

Table 64. Logistic Regression Predicting Likelihood of Sequential Choice Consistency from Low Trade-off Difficulty Goal Priming for Study II	127
Table 65. Variables not Included in the Logistic Regression Predicting Likelihood of Sequential Choice Consistency for Study II	128
Table 66. R Square Statistics for Trade-off Difficulty and Stress in Study II	128
Table 67. ANOVA Statistics for Trade-off Difficulty and Stress in Study II	129
Table 68. Regression Coefficients and Confidence Intervals of Trade-off Difficulty for Study II	129
Table 69. Omnibus Tests of Model Coefficients for Stress in Study II	130
Table 70. R Square Statistics for Stress in Study II	130
Table 71. Correctly Classified Cases for Stress in Study II	130
Table 72. Logistic Regression Predicting Likelihood of Sequential Choice Consistency from Stress for Study II	130
Table 73. Omnibus Tests of Model Coefficients for Trade-off Difficulty and Stress in Study II	131
Table 74. R Square Statistics Trade-off Difficulty and Stress in Study II	131
Table 75. Logistic Regression Predicting Likelihood of Sequential Choice Consistency from Trade-Off Difficulty and Stress for Study II	132
Table 76. Omnibus Tests of Model Coefficients for Sequential Choice Typicality Interaction	133
Table 77. R Square Statistics for Sequential Choice Typicality Interaction.....	134
Table 78. Logistic Regression Predicting Likelihood of Sequential Choice Consistency from Trade-Off Difficulty, Sequential Choice Typicality and their Interaction	134
Table 79. Variables not Included in the Logistic Regression Predicting Likelihood of Sequential Choice Consistency Trade-Off Difficulty, Sequential Choice Typicality and their Interaction	135
Table 80. Summary of the Hypothesis Testing Findings.....	137

LIST OF FIGURES

Figure 1. Research Model	54
Figure 2. Research Road-Map.....	57

CHAPTER I

INTRODUCTION

How many times did you have to make a choice between delicious but unhealthy and healthy but less delicious meals; to decide whether to go out with your friends at night or to work late in your office; to choose going on a highly enjoyable, expensive vacation versus a less enjoyable, economic one; to select either a well designed or highly functional technological product such as a cell phone, laptop computer, television or their complementary devices? To put it differently, how many times did you have to give up taste for good health, to tradeoff having good time for advancing in your career, to forgo pleasure for saving money or to make a hedonic versus functional tradeoff? During their lives, consumers often have to make such choices between multiple and incompatible goals (e.g., Bettman et al., 1998; Chitturi et al., 2007; Dhar and Supagro, 2008; Fishbach and Dhar, 2005, 2008; Fitzsimons, 2009; Huffman et al., 2000; Laran, 2010; Wang et al., 2010). Therefore, the pursuit of conflicting goals in the choice context is a fascinating research area for marketing and consumer behavior scholars.

How often did you have to make those choices as part of a sequence of related decisions such as preferring either a delicious or healthy dessert after choosing between a delicious or healthy main course; spending your night with your friends or working in your office after you had studied hard during the whole day; choosing to purchase a case for your cell phone or a mouse for your laptop computer from either a well known or a lesser known brand just after you had decided which cell phone or

laptop computer to buy among those brands? How many times these choices that you made in an ongoing sequence were consistent? More importantly, what were the roles of goals in your sequential choice decisions? It is a widely accepted phenomenon that goals play a fundamental role in consumer behaviors (e.g., Chartrand et al., 2008; Fishbach and Dhar, 2008; Laran, 2010; Laran and Janiszewski, 2009; Markman and Brendl, 2000; Soman and Cheema, 2004) and sequential consumer choices (Dhar and Simonson, 1999; Fishbach and Dhar, 2005; Novemsky and Dhar, 2005; Wang et al., 2010). Hence, the pursuit of conflicting goals in the choice context of an ongoing sequence is a further charming topic for consumer research area.

Another question that naturally arises is that why did you prefer to be consistent or inconsistent across your sequential choices? In other words, how many times did you feel guilty for choosing a tasty but unhealthy meal, and wished that you had chosen the other alternative, a less tasty but healthier one? How many times did your feelings induced by this initial meal choice influence your subsequent choice between a tasty but unhealthy and a less tasty but healthier dessert? Notably, how many times did you feel stress in making these decisions derived from giving up one of your conflicting goals for the others? How many times did you try to cope with these negative feelings? Emotions are significant aspects of human experiences in general and consumer behaviors in particular (Bagozzi et al., 1999). Moreover, emotions, goals and behaviors are highly interrelated concepts; either independently or collectively, goals and emotions may guide behaviors, behaviors and goals may evoke specific emotions, and emotions may direct behaviors and goal pursuits (e.g., Andrade, 2005; Andrade and Cohen, 2007; Bagozzi et al., 2000; Emmons, 1999;

Fishbach and Dhar, 2008; Kahn and Isen, 1993; Lee et al., 2009; Levav and McGraw, 2009; Schmitt, 1999). Thus, the antecedents and consequences of emotions evoked by making a choice confer another fruitful focus of interests for marketing and consumer research studies.

As a result, the pursuit of conflicting goals in the context of choices made in a sequence leading to either sequential choice consistency or inconsistency appeared as an inevitable scope of interest for this thesis. Moreover, since consumers' daily lives consist of such sequential choices made in the presence of goal conflicts, enriching our understanding of consumer's sequential choice throughout the present study was expected provide a wide variety of implications for marketing practice. Furthermore, in view of the fact that a goal-theoretic perspective lacking an emotional aspect may be a fruitless attempt to understand sequential choices, the role of stress was incorporated in the present examination. In what follows, the general objective and significance of the study is discussed by referencing to the relevant extant literature.

1.1 OBJECTIVE AND SIGNIFICANCE OF THE STUDY

Despite the relevance and prevalence of studies on choices in consumer research and marketing literature, only relatively recently research has examined consumer choices in the context of an ongoing sequence (Dhar and Simonson, 1999; Fishbach and Dhar, 2005, 2008; Huber et al., 2008; Novemsky and Dhar, 2005; Wang et al., 2010). This line of research has enormously focused on the goal theory to understand how the pursuit of multiple and conflicting goals direct sequential consumer choices. One of the main premises of the dynamic goal-based sequential choice theory was

originally speculated by Dhar and Simonson (1999). They argued that when there is a trade-off between two active goals (e.g., pleasure and good health); consumers tend to pursue each of these goals, and therefore, be inconsistent across their sequential choices. This thesis mainly builds on this prior research and aims at enhancing our understanding of consumers' sequential choices in the presence of conflicting goals, by focusing primarily on how trade-off difficulty may favor or hinder a preference for consistency in two consecutive choice decisions.

Notably, within the realm of sequential consumer choice literature, emotional aspects of related choices that consumers make in sequence is largely unknown (Andrade and Cohen, 2007; Huber et al., 2008). However, emotions and goals have a natural relationship (Emmons, 1999); goals may serve as an information provider about the achievement of goals being pursued and may also guide goal-directed behaviors (Bagozzi et al., 2000). Although much less is known about the latter directive effects of emotions on consumer behaviors (Bagozzi et al., 1999; Lau-Gesk and Meyers-Levy, 2009; Passyn and Sujan, 2006), the main insights from an emerging body of emotions research are that consumer behavior is often driven by emotions (e.g., Chitturi et al., 2007; Labroo and Mukhopadhyay, 2009; Labroo and Ramanathan, 2007; Levav and McGraw, 2009; Lee et al., 2009; Passyn and Sujan, 2006). Specifically, despite the preponderance of studies on stress in behavioral and social science research area, little attention has been given to stress in consumer research literature (Moschis, 2007). Hence, given such important gaps in the consumer behavior literature regarding to emotions and particularly stress, this study is aimed at empirically investigating the role of stress on goal-directed sequential choices in the presence of goal conflicts.

Moreover, although the concept of typicality is receiving a growing interest in consumer categorization literature (e.g., Corfman, 1991; Loken and Ward, 1990; Ratneshwar et al., 1996; Ratneshwar and Shocker, 1991), previous research does not shed light on the role of typicality on sequential consumer choices. Thus, one of the goals of this thesis is to fill this gap by exploring the impact of perceived subsequent choice typicality on the likelihood of consumers being consistent across their goal-directed sequential choices. Additionally, by extending goal-derived categorization beyond the product boundaries, namely to sequential choices, it is also expected to provide new insights into consumer categorization literature.

1.2 RESEARCH QUESTIONS OF THE STUDY

Based on the important gaps in the consumer research literature, which is briefly discussed in the previous section, it is aimed to answer the following research questions throughout the study.

- (I) Does the level of trade-off difficulty between two active and conflicting goals influence the likelihood of consumers to be consistent across their sequential choices?

- (II) Regarding the gender of the hypothetical consumer in the scenario, does the gender of participants moderate the effect of the trade-off difficulty level on the consistency of consumers' sequential choices?

(III) Is there any relationship between the levels of trade-off difficulty and stress experienced during making a choice?

(IV) What is the role of experienced stress on the consistency of consumer choices made in an ongoing sequence?

(V) Does the level of subsequent choice typicality strengthen or weaken the impact of trade-off difficulty level on the consistency of consumers' sequential choices?

1.3 STRUCTURE OF THE THESIS

This thesis is organized into six main chapters. The content of each chapter is briefly summarized in the following.

Chapter I In this introduction chapter, the motivation of focusing on the topics that the thesis revolves around is briefly presented. In addition, objectives of the present study associated with the relevant literature gaps are discussed, and eventually research questions are stated.

Chapter II This chapter reviews prior research relevant to the scope of interest of the thesis with special attention to the literature on the pursuit of active, multiple and conflicting goals in the sequential choice context. Additionally, the relationship between goal-derived categories and sequential consumer choices are discussed based on the categorization theory. Indeed, this review serves as an organizing

conceptual skeleton to present part of the literature gaps confirming the theoretical contribution of the present study.

Chapter III In this chapter, the emotion regulation and stress theory are briefly reviewed, and then some of the major findings from research on consumer behaviors are conferred. Throughout this selective review, with an eye to the consumer research literature, the significance of examining emotional aspects of making choices in sequence is discussed. Notably, the concept of stress is addressed as an important gap in the relevant literature.

Chapter IV This chapter portrays the methodological background of the thesis in depth. With this respect, building on the extant literatures discussed in the previous chapters, an integrated framework that is expected to enhance our understanding of consumers' consistency across their sequential choices is presented. Then, the research hypotheses derived from the proposed model is stated. Next, research design, data collection methods, stimulus materials and general procedures in conducting experimental designs are discussed in details. Finally, the designs of the two pretests and the research findings are presented.

Chapter V In this chapter, the statistical results and findings of the two main studies are enumerated in two sections. Besides, the findings are summarized at the end of chapter.

Chapter VI This final chapter of the thesis starts with a general discussion of the findings and contributions to the relevant theories. Then, the chapter continues with an elaboration of practical implications of the findings. Finally, after research limitations are discussed, promising directions for future research are proposed.

CHAPTER II

MULTIPLE GOAL PURSUITS IN SEQUENTIAL CONSUMER CHOICES

Although considerable amount of previous studies focused on goals in marketing, research on how goals are selected, pursued and achieved lacks in literature (Bagozzi and Dholakia, 1999; Chartrand et al., 2008; Dhar and Simonson, 1999; Fishbach and Dhar, 2008; Huffman et al., 2000; Payne et al., 1993). Additionally, taking into account the notion that consumer choices are mostly driven by the consideration of multiple underlying goals, consumer behavior theory should address how these multiple and potentially conflicting goals are pursued in sequential choices (Fishbach and Dhar, 2005). Therefore, this chapter provides a comprehensive review on the pursuits of active and conflicting goals in the sequential choice context, and highlights the gaps and opportunities for further research avenues.

2.1 SEQUENTIAL CHOICES IN THE PRESENCE OF CONFLICTING GOALS

In most real-life circumstances, consumers tend to pursue different goals simultaneously (Fishbach and Dhar, 2005; Fitzsimons, 2009), and the pursuits of these multiple and most of the time contradicting goals often lead to goal conflicts which may have many consequences on consumers' emotions and behaviors (Dhar and Supagro, 2008; Emmons, 1999; Huffman et al., 2000). Hence, these consumer

decisions are often conceptualized in terms of a matrix specifying attributes, alternatives, values or goals conflicting with each other (Luce, 1998).

Heitler (1990: 5) defined conflict as “a situation in which seemingly incompatible elements exert force in opposing or divergent directions”. In such a situation, therefore, a conflict may involve opposing feelings toward the same stimuli, directing the individuals in opposing directions that may results in making the decision more complicated, difficult and stressful (Emmons, 1999; Festinger, 1957). An operational definition of decision conflict refers to the degree of negative correlation between attribute levels (Luce, 1998). For example, if the attributes of healthiness and tastiness of a meal are negatively correlated, a conflict will occur and it will be relatively difficult to decide among different alternative meals such as between a tasty but less healthy food and a healthy but less tasty food. In terms of goal conflict situations, the pursuit of one goal may interfere with the pursuit of another (Emmons, 1999). For instance, one’s goal of spending time with valued friends may interfere with the goal of advancement in his/her career. In this goal conflict situation, one person may prefer to pursue the goal of spending time with valued friends but another may favor the other goal.

Goal theory is one of the most commonly used framework of many past studies examining sequential consumer choices in the presence of multiple and conflicting goal pursuits (e.g., Chartrand et al., 2008; Dhar and Simonson, 1999; Fishbach and Dhar 2005, 2008; Laran and Janiszewski, 2009; Novemsky and Dhar, 2005).

The pursuit of competing goals in sequential choices may be explained by two goal management models. On one hand, nonconscious goal management models argued that goals are often activated without conscious, and the nonconscious goal activation and goal pursuits may guide subsequent behaviors without the one's awareness or intent (Chartrand et al., 2008; Chun and Kruglanski, 2005; Markman and Brendl, 2005). For instance, consumers' incidental exposure to a retail brand having images of prestige or thrift can activate their prestige-oriented or thrift-oriented shopping goals and, in turn, influence their subsequent brand choices congruent with the nonconsciously activated goal (Chartrand et al., 2008). More recently, Laran and Janiszewski (2009) proposed that a passive guidance system which nonconsciously guide behavior in the pursuit of multiple and conflicting goals. To be specific, when consumers passively engage in the pursuit of two conflicting goals, they tend to pursue the activated goals while inhibiting the activation of competing goals in their sequential behaviors. However, if the same behaviors are perceived as goal achieving, the goal achievement in one goal results in the activation of recently inhibited goal leading to behavioral inconsistency. In some cases, consumer choices may also be influenced by unconscious goals when those choices satisfy the goals consumers striving to attain consciously (Chun and Kruglanski, 2005). Most importantly, if consumer preferences are driven by nonconscious goals, it seems unable to predict their future behaviors and preferences (Markman and Brendl, 2005). Yet, it should be noted that the nonconscious pursuits of multiple goals are beyond the scope of this research.

On the other hand, only limited number of studies explicitly dealt with the impacts of goals on choice, and thus little is known about the dynamics of goal activation in

consumer decision making (Bagozzi and Dholakia, 1999; Chartrand et al., 2008; Fishbach and Dhar, 2008; Huffman and Houston, 1993; Markman and Brendl, 2000). Active goal management models trying to explain behavioral consistency in sequential consumer choices assume that an active monitoring system manages the pursuit of multiples and conflicting goals. In general, when a goal is activated, adopted by a cognitive system, that goal continues to guide behaviors until it is satisfied or abandoned (Markman and Brendl, 2000). The activation of multiple goals across or within goal levels often leads to goal conflicts or behavioral inconsistencies (Huffman et al., 2000). Previous studies identify different principles that manage the pursuits of multiple active goals across congruent multiple choices.

The pioneering research on the management of active and conflicting goals pursuits in sequential choices was conducted by Dhar and Simonson (1999). By conducting a series of studies, they provided evidence that when consumers make choices involving the same tradeoff between two goals (e.g., pleasure and good health), they prefer balancing the pursuit of the two conflicting goals within each consumption episode (e.g., in each episode have one tasty item and one healthy item). Specifically, consumers are more likely to select a tasty dessert after having a healthy entrée rather than having a tasty entrée when they have to trade between good health and pleasure goals, and therefore be inconsistent across their sequential choices. The researchers reasoned that “a total neglect of any (important) goal spoils the value or pleasure derived from attaining a peak level on the other active goal” (Dhar and Simonson, 1999: 32). On the contrary, when the trade-off is between a goal and a resources (e.g., pleasure and cost, health and cost, or pleasure and waiting time), they argued that consumers prefer highlighting. Particularly, consumers are

more likely to enjoy the imported beer when sitting in the superior section rather than when sitting in the average section in a baseball game stadium.

Following these initial evidence of multiple goal management in the sequential choice, Fishbach and Dhar (2005) proposed that when consumers have multiple goals, which are unrelated or even conflicting, the initial goal pursuit may serve as an excuse and hinder the pursuit of the same goal on subsequent choice (also referred to goal progress), whereas the same choice perceived as goal commitment may favor the pursuit of the same goal.

In a similar vein, Novemsky and Dhar (2005) investigated the effect of goal fulfillment derived from an initial choice experience on the preference for an option with greater variability in a subsequent choice. They anticipated that if an initial choice outcome causes one to seek a higher level of goal attainment and if a risky option best serves the higher goal target, then the risky option is more likely to be preferred over a more conservative option. For instance, a consumer who had a good entrée, compared to someone who had a bad entrée, is more likely to choose a variable dessert option (e.g., sometimes better and sometimes worse than the consistently moderate dessert).

According to the constructive preference approach, consumer preferences are often constructive which means not predefined in the memory, instead constructed when they are needed (Bettman et al., 1998). This may be because preferences are highly task and context dependent, and thus, leading consumer to revolve around different aspects of the choice alternatives and eventually to engage in inconsistent decisions.

In terms of choice context effects (e.g., personal choices versus choices for others), Laran (2010) posited a distinction between governing the pursuits of multiple goals when making choices for one's self versus for others. He demonstrated that consumers tend to balance their personal goals across sequential choices for themselves, whereas they tend to highlight pleasure-seeking goal across sequential choices for others.

As stated previously, many consumer choices in the real world are not made in isolation; they are often a part of a series of similar choices (Khan and Dhar, 2006). Individual experiences are generally composed of a series of interconnected events and these events are called temporal sequences (Montgomery and Unnava, 2007). For example, going on a vacation may comprise events such as going out to eat, seeing a show, or lying by the pool which will ultimately lead to an overall evaluation of the trip. With regard to the balancing or highlighting effects of a first choice on a second choice in temporal proximal, Dhar and his colleagues (2007) argued that an initial purchase enhances consumers' propensity to purchase a second unrelated product. Specifically, through a series of experiments, they showed that the greater the initial purchase incidence (e.g., attractiveness of a choice), the greater is the propensity to purchase the subsequent unrelated product. They explained this shopping momentum effect, as what the authors called, based on goal-related mind-set theory. The proposed explanation argued that the choice to begin spending evokes feelings of commitment to purchase by diminishing the psychological barriers to goal-related and temporally proximal actions. For instance, such an action orientation toward shopping derived from an initial purchase may cause a consumer to purchase many other products in a department store where she just stopped at on her way back

from work and in fact was not planning to make any purchases. This argument supports the notion that individuals demand consistency across their decision (Drolet, 2002; Fishbach et al., 2006; Nordgren and Dijksterhuis, 2009). Although a deliberative approach associated with a systematic consideration of all aspects of the choice object such as thinking carefully on the relative importance of each of the object features may be expected to lead to more consistent preferences, Nordgren and Dijksterhuis (2009) showed that deliberation may in fact lead to more inconsistent choices. On the other hand, they also mentioned when the decision object and decision process is complex, deliberation may hamper decision consistency. Complexity derived from evaluating at least more than one dimension during the decision process leads to inconsistent preferences. Similarly, consumers may tend to vary their use of decision rules in making choices and thus they may engage in short term balancing, what was originally termed as inherent rule variability in consumer choice processes by Drolet (2002). She argued that increased choice of a particular option (e.g., lower price, lower quality versus higher price, higher quality, or private label versus brand name) on past occasion is associated with relatively decreased choice of that same option on subsequent occasions.

The influence of an initial choice involving a trade-off between conflicting goals on the immediately following choice that shares the same trade-off was also examined based on self-regulation theory. According to Muraven and Baumeister (2000), people exert self-control when they attempt to change the way they would otherwise think, feel, or behave. This self-regulation is also accepted to operate like a muscle with a limited capacity (e.g., Baumeister et al., 2008; Muraven et al., 1998; Vohs and Heatherton, 2000; Tice et al., 2007). Hence, when an initial action expends some of

its capacity, subsequent resource depleting actions either in the same or in the other domains suffers. For example, Muraven and his colleagues (1998) reported that participants who were told to regulate their mood (either the direction of the regulation is positive or negative) led to poorer performance on a subsequent test of physical stamina (handgrip). Recently, Novemsky and his associates (2007) asserted that the present level of depletion of consumers may have an effect on their self-control on choices between vices and virtues. Consistent with this view, Khan and Dhar (2006) explored the effect of viewing a choice as one of similar future choices in the context of sequential choice decisions requiring self-control (a choice between a relative vice and a relative virtue). They hypothesized that consumers are more likely to choose a relative vice in their present decisions when they are aware of having to make a similar choice in future than when they are not, and thus, their preference for a vice increases when the choice is viewed in connection with similar future choices. Since, when people viewed a choice as a series of similar future choices, they tend to believe that they will exercise greater self-control in the similar future choice and therefore, they become less likely to exercise self-control in the current choice. More recently, Wang and his colleagues (2010) demonstrated that trade-offs are a fundamental facet of choices and significantly important in understating sequential consumer choices. According to these authors, when a consumer makes large trade-offs depleting executive resources, she/he becomes less able to exert self-control and chooses a vice in a subsequent choice. Presumably, this was because the degree of self-regulation during the first decision influences the second choice (Dewitte et al., 2009).

In sum, Montgomery and Unnava (2007) noted the importance of studying temporal sequences of events and their effects on similar consumption experiences in future. Following this suggestion, this study focuses on sequential choices made in temporal proximity, or within a consumption episode as what Dhar and Simonson (1999) called. They defined consumption episode as a “set of items belonging to the same event and occurring in temporal proximity” (Dhar and Simonson, 1999: 30).

Additionally, whereas the majority of choice research focuses on the pursuit of single goal and isolated choices, a growing body of goal-based choice studies provides new insights by considering the pursuits of multiple goals and making choices in sequence (see, Fischbach and Dhar, 2008, for a detailed review). In addressing the effects of the pursuits of multiple and conflicting goals, the importance variations of within-level goals deserve further consideration (Huffman et al., 2000). On the basis of this new research avenue opportunity, a further exploration of the impact of trade-offs between conflicting goals on choices is discussed in the following section.

2.2 THE IMPACT OF TRADE-OFF DIFFICULTY ON SEQUENTIAL CHOICES

Consumers make choices to achieve their goals; however these choice situations often conjure up multiple goals (Bettman et al., 1998), and thus, produce conflicts (Tversky and Shafir, 1992). Goal conflicts pervade consumers’ daily lives, and more importantly, these conflicts lead individuals in opposing behavioral directions (Emmons, 1999). Pursuing one goal may interfere with the pursuit of the other, and therefore, individuals have to make a tradeoff between these incompatible goals.

Unfortunately, the notion of trade-off difficulty has received limited attention in consumer behavior literature (Bettman et al., 1998). Notably, to date, majority of the studies focused on the attribute aspects of trade-off conflicts in choice decisions (e.g., Chitturi et al., 2005, 2007; Dhar, 1997; Shafir et al., 1993; Tversky and Shafir, 1992; Wang et al., 2010).

Commonly, individuals make decisions between two possible alternatives, each having both positive and negative aspects (Festinger, 1957). This type of decision situations leads to conflict arousal because one must choose between the two alternatives pushing him/her in two opposing directions. More importantly, when the alternatives are almost equally attractive, the decision will be characterized by longer decision time and high efforts in making the decision. In addition, after making a choice, decision maker may not be confident about the chosen alternative and wish to have chosen the other one. Similarly, a typical consumer choice includes multiple options in which each option has significant advantages and disadvantages compared to the other(s) (Wang et al., 2010). Since consumers do not always know how to trade-off the relative advantages or disadvantages of the various options, they often experience conflicts (Tversky and Shafir, 1992). The more the negative correlations among the attributes of choice alternatives, the more consumers have to give up positive aspects of one attribute for the positive aspects of the other attributes (Bettman et al., 1998). Moreover, conflict generated by trade-offs arising from deciding which desirable and undesirable aspects of a choice option to accept depletes executive resources (Wang et al., 2010). For example, while choosing between an enjoyable, expensive and a less enjoyable, more economic vacation, deciding whether to give up safety of a car for a lower price, preferring a highbrow

movie offering less immediate pleasure but is educationally and culturally enriching rather than a lowbrow movie offering immediate pleasure providing little educational and cultural enrichment, selecting to work late rather versus to go out with friends or preferring a tasty but unhealthy dessert rather than a less tasty but healthier one, the decision maker may feel conflict.

Many consumption decisions, both big and small, involve experiencing conflicts and making trade-offs, and thus, deplete executive resources (Chitturi et al., 2005; Dhar, 1997; Shafir et al., 1993; Tversky and Shafir, 1992; Wang et al., 2010). Consider a situation in which a person can select one of two alternatives, and one of them is better than the other in all essential aspects such as an apartment option superior on both of the evaluation dimensions of rent per month and distance from campus. This choice decision involves no conflict and the choice task is easy. On the other hand, if each option has significant advantages as well as disadvantages, and neither of the alternatives dominates the other such as one of the apartment options has fewer prices but the other is more close to the campus, a conflict occurs and the choice becomes difficult. That person is more likely to defer the choice when the degree of conflict is high than when it is low (Tversky and Shafir, 1992). Even small differences in attribute values of alternatives may cause choice conflict and choice deferral (Dhar, 1997). Festinger (1957) argued that the degree of trade-off conflict in choice should increase as the size of difference in attribute values increases. Chatterjee and Heath (1996) examined the impact of avoidance-avoidance, approach-approach and embedded approach-avoidance types of conflicts, and the size of differences in attributes values across choice alternatives, and found that a choice between two alternatives may result in more conflict and increased decision

difficulty when options are relatively unattractive and when the attribute trade-offs are larger. A recent research extended this knowledge by focusing on the depletion effect of choice conflict generated by trade-offs, and proposed that the larger the trade-offs, the greater the conflict will be which also requires greater executive resources for the resolution (Wang et al., 2010). For instance, consider the previous example about a choice between apartment alternatives. The choice will be difficult and result in conflict when the two attributes (rent per month and commute) are negatively correlated across three options. In such a large, high-conflict trade-off situation, choosing one of the alternatives requires giving up relatively a substantial amount of an attribute and resulting in exerting more self-control subsequently. However, if one of the options requires forging relatively small advantages compared to others in the choice set, making choices will be less difficult and less depleting due to the low-conflict trade-off conditions.

In addition, decision making is often difficult because people are usually uncertain about the exact outcomes of their actions, and hence experience conflict frequently regarding how much of an attribute to trade off in favor of another (Shafir et al., 1993). Likewise, Bettman and his associates (1998) argued that the difficulty of making a choice is high related with the increased number of options and attributes, uncertainty about the values of the attributes, number of attributes that are difficult to trade off, and the decreased number of shared attributes. Consistent with this view, Sela and his colleagues (2009) recently showed that as the number of available alternatives increases, consumers become more likely to evaluate making a choice difficult, and tend to select virtue and utilitarian options.

There has not been much research on trade-off concept in decision making literature (Beattie and Barlas, 2001). One important exception is the work on the perceived differences in tradeoff difficulty by Beattie (1988) (cf. Beattie and Barlas, 2001). In her pilot experiment, she asked subjects to rate the difficulty of making a decision between the pairs of options selected from three major categories of objects: commodities such as camera, computer, clothes, vacation and CD, noncommodities such as health, pain and friendship, and currencies such as time, money and coupons. She found that all of the participants (10 subjects) expect one chose noncommodities over commodities, and all chose noncommodities over currencies. In addition, the decision difficulty was related with the object category, which was associated with the importance and similarity of the alternatives and the morality of the decision. Then, Beattie and Barlas (2001) extended the findings of this pilot study by a more comprehensive analysis with a larger number of respondents (64 subjects). First, they asked subjects to rate the difficulty of the decision in the stories presented to them, and then to reread each story and to rate the trade-off situation on a list of other seven features designed to identify differences between the categories. Finally, they argued that the more the respondents were unsure about making the right decision, the more they cared which alternative they received and the more they evaluated the decision as important, the more respondents experienced difficulty. More importantly, they showed that the composite importance variable explained the 54 percent of the variance in decision difficulty.

Moreover, Montgomery (1989) argued that decision making process is a search for a dominance structure in which one of the available alternatives viewed as clearly superior over the others. In this context, Shafir and his associates (1993) pointed out

that people resolve the conflict aroused from a choice between two equally attractive options by selecting an alternative that is best on the more important dimension because this may provide a compelling reason for the choice. In goal conflict situations, Huffman and his colleagues (2000) proposed that dominance can be achieved by adjusting the relative importance of conflicting goals.

Therefore, in making a choice involving a trade-off between two conflicting goals, the choice difficulty arising from trade-off conflict may be related to the relative importance of conflicting goals. Specifically, when one of the contradicting goals is relatively more important than the other, the trade-off difficulty will be perceived as low. Since, consumers may easily give up the relatively less important goal to attain the other more important goal. However, if consumers give almost equal importance to both of the conflicting goals, then making a trade-off will be more difficult.

2.3 THE IMPACT OF GOAL-DERIVED CATEGORIES ON SEQUENTIAL CHOICES

Imagine a consumer who is planning eat some snack foods. He might recall products like popcorn, apple and yogurt. However, as most of the consumers would do, he might recall popcorn sooner than others, and think of popcorn as a better example of a snack food. Ultimately, he might prefer to choose popcorn to eat. In terms of brand typicality, he might regard some popcorn brands as a better example of a snack food, and eventually prefer that particular brand. If we suppose that he is on a diet, he might regard all these products as members of “snack foods to eat on a diet” ad hoc category. However, this time he might not think of popcorn as a better, more typical

example of a snack food, and might prefer to eat apple or yogurt at first (Loken and Ward, 1987). It can be understood from the example that product typicality is an important determinant of consumer choices, and how consumer categorize products may provide remarkable implication insights for firms, particularly within the new product context (Lajos et al., 2009). Although notable research in psychology has devoted considerable attention to categorization theory, and the concept of typicality and its determinants, considerable work remains to be done in consumer research and marketing literature (Lajos et al., 2009; Loken and Ward, 1987, 1990; Nedungadi and Hutchinson, 1985; Ratneshwar et al., 1996).

Rosch (1978: 30) defined category as “a number of objects that are considered equivalent”. Indeed, the purpose of categorization is to consider an object not only equivalent to the others in the same category but also different from objects not in that category. Categories are generally identified with names like dog, animal, chair or living room chair. In particular, some decision making theory researcher argued that consumers form consideration sets in a hierarchy and make their choices accordingly (Ratneshwar et al., 1996). For example, when a consumer feels thirsty, he might first consider the superordinate category of beverages, then moves to a basic category like fruit juices, after that creates the consideration set of brands from a subordinate category such as orange juices, and finally chooses one of the alternatives within these considered brands.

Moreover, many items, especially in the food domains, belong to multiple hierarchy levels (Ross and Murphy, 1999). For example, a bagel may be regarded as bread, a sandwich food, a breakfast food, a Jewish food, or a snack food. Considering the

previous example, that consumer may also include alternatives from different product categories like orange juices and colas in his/her consideration set (Ratneshwar et al., 1996). Thus, better understanding of how, why, when and at which levels consumer form product categories may have considerable potential for advancing consumer categorization and behavior literature as well.

Since most of the categories do not have precise boundaries, categorical judgment should be directed to perceivers' judgments of goodness of membership in a specific category (Rosch, 1978). Typicality or goodness of exemplar refers to the degree which an item is perceived to represent a category (Loken and Ward, 1990; Nedungadi and Hutchinson, 1985). Although there is no consensus on the determinants of typicality, previous studies argued that attribute sharing with other members, familiarity and frequency of instantiation, and attitude toward the category member under evaluation are such factors that may influence the judgments of the typicality (Loken and Ward, 1990). The degree to which a category member shares attributes with other members (also referred to family resemble) is argued to determine whether the more or less typical a product is of a specific category (Rosch and Mervis, 1975). Unlike common features, distinctive attributes are suggested to be negatively related to perceived typicality (Tversky, 1977). However, distinctive features may also be unrelated to typicality of an item to a particular category, especially when consumers are more likely to perceive the item as a means of achieving a goal or set of goals (Loken and Ward, 1990).

In addition, the relative typicality of two exemplars may also vary based on the category being considered in rating item-category typicality (Smith et al., 1974). For example, a snake may be a typical reptile, a moderately typical vertebrate, and an

atypical animal. Members of a target semantic category may vary in their representativeness or typicality of that category and thus, the levels of typicality of category members differs (Hampton and Gardiner, 1983; Malt and Smith, 1982; Nedungadi and Hutchinson, 1985). For example, a peach may be a more typical fruit than a pomegranate or a robin may be a more typical bird than a roadrunner (Malt and Smith, 1982).

Semantic relatedness, the properties and characteristics people attribute to objects in the same category, is also stated to be an important variable in predicting the rated typicality (Ashcraft, 1978). Features associated with a given semantic category may vary in the extent to which they define that category (Smith et al., 1974). For example, an individual may define the concept robin with the words like bipeds, have wings, have distinctive colors, perch in trees or undomesticated. However, whether the first three of these features or the rest may be considered more in defining that concept will differ between individuals. Some other researchers put familiarity-based explanation of typicality forward as an alternative (Malt and Smith, 1982). In other words, the more category members are seen, talked about or interacted with, the more they will be rated as typical. On the other hand, although familiarity affects typicality ratings in natural categories, familiarity alone is lack of explaining variations in typicality. For instance, an apple might be evaluated as a familiar item in general but as an unfamiliar instance as a pizza topping (Loken and Ward, 1990). By the same token, items may be thought of atypical category members because they are well known but unrepresentative such as tomatoes as fruits or simply because they are not well known such as persimmons (Hampton and Gardiner, 1983). Therefore, frequency of encountering an object in general but especially being

member of a specific category may also determine whether that object is a less or more typical member of that category (Barsalou, 1983; Nedungadi and Hutchinson, 1985). In current markets, broadly distributed, advertised, consumed, briefly more commonly encountered, popular products seems more likely to share the attributes preferred by mass markets, and consequently consumers tend to perceive frequently encountered products as more typical (Loken and Ward, 1990). Some other explanations propose that there is a relationship between an item's typicality, and one's attitude toward that item and evaluations of valued attributes (Loken and Ward, 1990; Nedungadi and Hutchinson, 1985). Ideals, operationalized as valued attributes that a member of a category should have to serve the goal(s) the category derived from, founded to be associated with typicality (Barsalou, 1983). In addition, it was noted that most of the goal-derived categories have multiple ideals. For example, consumers may perceive and judge "possible restaurants to eat" ad hoc category on the ideals of lowest possible cost, highest possible quality or closest proximity as means for the goal(s) category is serving. In such a situation, the importance of ideal characteristic(s) the item has, which should be closely related with ones attitude toward that item, may depend on the goal a person is pursuing (Loken and Ward, 1990). It can also be argued that typicality is highly related to the degree to which a product has salient attributes related to the goals or uses of the category (Loken and Ward, 1987).

Categorization theory entails two distinct categories as common and ad hoc (Barsalou, 1983). Common categories are the ones that have well established category presentations in the memory since they are commonly used such as "birds", "furniture" and "fruit". On the other hand, ad hoc categories refer to categories

people constructed spontaneously for use in specialized context to achieve some specific goals. For instance, a person can create an ad hoc category of “things to sell at a garage sale” to achieve the goal selling unwanted possessions. Unlike common categories, ad hoc categories are not used frequently and do not have well established representations in memory because they often created spontaneously and processed simultaneously. Like taxonomic categories, ad hoc categories exhibit graded structure to maximize the similarity of objects within a category while minimize the similarity of objects between distinct categories (Rosch, 1978). With regard to graded structure, the typicality of objects also varies within the category they belong (Nedungadi and Hutchinson, 1985). Consequently, some exemplars are better examples of a given category than other members (Malt and Smith, 1982). The concept graded structure has a significant importance in categorization theory because of its relations with many cognitive tasks efforts such as evoking and recalling products from memory (Barsalou, 1983; Ratneshwar and Shocker, 1991). On the theory of graded structure of goal-derived categories, Barsalou (1983) found that family resemblance (also referred to central tendency) was not a determinant of typicality in goal-derived categories. Conversely, ideals and frequency of instantiation determine graded structure in ad hoc categories. In a study focusing on generating instances for a given category, Vallée-Tourangeau and his associates (1998) demonstrated that it was easier for participants to generate items for common categories than for ad hoc ones, and also within the latter categories, generating items for familiar types of categories was more easier. The influence of the presence of category label on the perceived similarity of the items is demonstrated to be greatest in ad hoc categories, least in taxonomic categories and intermediate for script categories (Ross and Murphy, 1999).

Loken and Ward (1990) stressed the importance of understanding the determinants of typicality in product type and brand categories, the relationship between typicality and preferences, and many other issues interest to consumer researchers, specifically when considering the inadequate number of studies focusing on this concept. For instance, a better understanding of typicality may provide more insight into diverse consumer behaviors such as how products are remembered, compared and chosen. Nedungadi and Hutchinson (1985) showed that typicality of brands is significantly correlated with brand name awareness, liking, recall, and brand preference. In specific, some brands may be viewed as being more typical than others, and those typical brand members may be more liked than atypical ones. In addition, more typical brands tend to be recalled faster than less typical brands (Loken and Ward, 1987). To summarize, the ad hoc category typicality of a product is determined by the value of the product on the goal-relevant dimension and the frequency with which the product had been considered as an instance of the concept in the past (Nedungadi and Hutchinson, 1985). For example, apple and yogurt may regard as highly typical of “things to eat on a diet” ad hoc category, although they may not normally belong to the same product category.

Most real life choices involve alternatives from diverse product categories, however, when and why consumers form across-category consideration sets, specifically goal-derived categories, have not been profoundly addressed (Corfman, 1991; Ratneshwar et al., 1996). One important exception is the research conducted by Ratneshwar and his colleagues (1996) which speculated that current market conditions lead producers to create, label and position different product categories to serve disparate consumer goals. They also emphasized that consumers tend to perceive alternatives in the same

category as serving only certain goals that might not be attained in another category. Therefore, consumers are more likely to form across-category considerations when they have multiple salient goals that cannot be reached concurrently by choosing a product in any given category. In other words, a goal conflict situation, in which two salient goals could not be fulfilled simultaneously, will enable consumers to activate multiple goal-derived categories. If a consumer perceives a product to be appropriate to several product usages, namely serving to more than one goal, that product should be considered as a more versatile product (Ratneshwar and Shocker, 1991). The more versatile a product, the more it can share usage with other products in a particular category, the more it can be instrumental to achieving goals associated with that category so perceived as the more typical member of that category. Likewise, although consumers believe that labeling and thinking, that is to say categorizing, different products is helpful (Ratneshwar et al., 1996), in many complex real-life domains, products belong multiple categories (Ross and Murphy, 1999) and consumers make choices among many alternatives from different product categories that are mostly noncomparable (Johnson, 1989).

The ad hoc categories often involve items that are not comparable on concrete attributes or dimension such as buying either a video cassette or season tickets to the ballet (Corfman, 1991) because such a structure does not allow making tradeoffs between objective and physical attributes of items (Johnson and Meyer, 1984). Theoretically, consumers focus their comparisons at higher levels of abstraction when they compare two choice alternatives from different product categories (Corfman, 1991; Johnson, 1989). For example, they may compare the noncomparable video cassette and season tickets to the ballet choices on their

potential for fun or enjoyment (Corfman, 1991), namely on their possibility to fulfilling goals in a specific goal-derived category (Barsalou, 1983). Therefore, it makes sense that when making choices among alternatives from an ad hoc category composed of products from different common categories, consumer may tend to prefer more typical members based on their goal-relevant attributes, and not on the concrete common features. However, taking into account that more typical members of both ad hoc and common categories are more likely to preferred than less typical members (Barsalou, 1983), the difference between the typicality of subsequent choice alternatives based on both ad hoc and common categories may influence the consistency of sequential goal-directed choices. Specifically, it may be proposed that whether a second choice is perceived to be more or less member of a specific goal-derived choice category, which will be manipulated by the level of typicality of that choice in terms of a related common category, will promote or attenuate sequential choice consistency, respectively.

It should be noted that ad hoc categories may be defined on two dimensions: concreteness and familiarity (Vallée-Tourangeau et al., 1998). Concreteness dimension refers to physical nature of the instances and familiarity dimension refers to the degree to which one is familiar with the category. For instance, “things people keep in their pockets” may be constructed as a high concrete, high familiar ad hoc category but “excuses for arriving somewhere late” is low concrete, high familiar one. Therefore, this study is concerned with low concrete, high familiar goal-derived sequential choice categories such as “choice category for getting pleasure and saving money simultaneously”.

To summarize, the notion of the evoked set assert that a set of brands or products are recalled by consumers and are considered for purchasing decisions and choices (Nedungadi and Hutchinson, 1985). Nonetheless, the probability of the inclusion of a brand or product type in the consumer's evoked set is related to its typicality and recalling timing (Loken and Ward, 1987, 1990). Therefore, studying the influence of typicality of subsequent choice based on the goal-derived sequential choices category is expected to contribute significantly to the consumer categorization and sequential choices literatures.

CHAPTER III

THE EFFECTS OF STRESS ON GOAL-DIRECTED CONSUMER BEHAVIORS

This chapter is divided into three parts. The first part summarizes emotion regulation theory and the role of emotion regulatory goals during emotion regulation process. The second part presents the association between emotions and consumer behaviors through examples from consumer research and marketing area. The third part, first briefly introduces important concepts of stress theory relevant to consumer behaviors, and then elaborates the possible contribution of future consumption-induced stress studies to the marketing and consumer research literature by discussing the findings of previous research in this area.

3.1 EMOTION REGULATION THEORY AND EMOTION REGULATORY GOALS

Emotion-arousing stimuli pervade our lives, arising from internal sensations like an upset stomach to external happenings or circumstances such as meeting the parents of your fiancée's for the first time, gossiping about a colleague, the music played in supermarkets (Gross, 1998; Koole, 2009) or waiting for the time to defend your thesis. People frequently seek to manage their emotional states by regulating their emotional responses. Therefore, emotions and emotion regulations are central to behavioral response of individuals to emotion-arousing stimuli.

Emotions arise from both attending to a situation and the relevance of this situation to one's goals (Gross and Thompson, 2007). Particularly, that situation is evaluated as relevant or not to the satisfaction or frustration of important goals and motives (Koole, 2009). The meaning one attaches to these circumstances, events and goals produce one's subsequent emotional reactions. One of most salient features of human emotion is its variability across individuals, called as affective style (Davidson, 1998). Consistent with the notion, different people may have different emotional reactions to the same situations or events (Bagozzi et al., 1999). Besides, the same happening may give rise to different emotion at different times for the same person because the situational sources or the goals may have no longer mean the same for that person (Gross and Thompson, 2007). With regard to individual differences, Davidson (1994) speculated about systems mediating different forms of motivation and emotion of individuals. The individual differences can penetrate into many different stages of the approach system which generates an approach-related form of positive affect which arises prior to goal attainment, and promotes appetitive behavior. For instance, an individual may prefer to change the just-achieved goal with a new desired goal (Davidson, 1998), may be because the just-achieved goal serves as excuses for moving away from the behavior and engaging in goal-incongruent behaviors subsequently (Fishbach and Dhar, 2005).

A widely accepted idea proposed by hedonic theory assumes that individuals often seek to increase positive emotions such as pleasure or happiness and to decrease negative emotions such as pain or risk. However, emotional stimuli may also trigger emotional behavior to initiate or increase negative emotions as well as to stop or to decrease positive emotions through emotion regulation (e.g., Andrade and Cohen,

2007; Erber and Erber, 2000; Gross, 1998; Koole, 2009). Gross (1998) defined emotion regulation as the processes of influencing which emotions to have, when to have them, and how to experience and express them. This group of processes serves to amplify, attenuate, or maintain the strength of emotional reactions given to incentives or challenges (Davidson, 1998). The emotion regulation may be automatic or controlled, conscious or unconscious, and more interestingly may have impacts at one or more points during the process (Gross, 1998). Hence, it is conceptually hard to determine exactly where an emotion ends and regulation begins (Davidson, 1998).

Dynamic affect regulation theories assume that when making behavioral decisions, people evaluate not only their feelings in a single point of time but also assess their anticipated feelings induced by a possible action in future (Andrade, 2005). Previous studies concerning risky decision situations such as gambling or lottery demonstrated that when decision makers are manipulated to feel elated, they are more likely to set a higher probability levels as the cutoff points for accepting the gamble, more likely to bet on a gamble with a 83% chance of winning rather than 17% chance, and more likely to prefer a \$ 1 lottery ticket rather than a \$ 10 ticket compared to the ones in a control group (Isen and Geva, 1987; Isen and Patrick 1983; Isen et al., 1988). According to Isen and his colleagues (1988), persons in a positive affective state are more likely to behave in a way that minimize losses or avoid risks because they perceive any given loss much more badly than the ones in a neutral state. In addition, Loewenstein and his associates (2001) pointed out that feelings may not only direct risk-related behaviors but may also mediate the relation between cognitive evaluations of risk and these behaviors.

By regulating their emotions, people seek to achieve certain psychological outcomes such as satisfying hedonic needs or supporting specific goal pursuits (Koole, 2009). Emotion regulatory goals are broader than explained by hedonistic accounts suggesting that people are motivated to promote positive emotions and prevent negative emotions (Gross, 1998). Goal-oriented emotion regulation may be directed toward satisfying or frustrating of a single goal pursuit (Koole, 2009) or balancing multiple goal pursuits (Rothermund et al., 2008). Emotion regulatory goals may be specific or general, more or less focal, conscious or unconscious but most importantly are often context specific (Gross, 1998). In accordance with the latter feature of emotional goals, Erber and his colleagues (1996) investigated the role of anticipated social interaction on the regulation of moods by asking research participants to perform a task with and without another participant after inducing happy and sad moods through exposure to cheerful or depressing music. Participants in task-alone condition selected positive and negative newspaper stories equally, whereas those in interacting condition preferred stories incongruent with their moods. Specifically, sad participants indicated a preference for cheerful stories and happy participants preferred depressing stories. Notably, when the same experimental procedure was employed with participants of romantic couples rather than strangers, participants attempted to maintain their current moods so that preferred newspaper stories with a mood-congruent content (Erber and Erber, 2000).

According to socioemotional selectivity theory, social interaction is highly motivated by a wide range of goals and the salience of these goals changes over the life span (Carstensen, 1995). As such, the relative importance of emotion regulatory over other previously central goals such as social goals increases in the late life of

individuals. Nevertheless, considerable work remains to be done on emotion regulatory goals of individuals, the aims of individuals when they regulate their emotions, and the longer-term consequences of emotion regulations (Gross, 1999). Another important question that remains to be answered is that how people resolve conflicts between need-oriented emotion regulation efforts directed towards immediate gratification and goal-oriented emotion regulation attempts to support specific goal pursuits (Koole, 2009).

Emotion regulation becomes more difficult when cognitive and emotional systems simultaneously involved in a decision making process favoring opposite and incompatible behavioral responses (McClure et al., 2007). Dieting is a clear example of a cognitive-emotion conflict people frequently encounter in their daily lives; choosing between the goals of maintain long-term health (cognitive) and enjoying the immediate enjoyment of tempting dessert (emotional). In such situations, people respond differently to their competing desires for immediate or long-term gains for different goods and under different conditions. For example, people may respond less impulsively for writing paper than for food or money. More interestingly, they sometimes demonstrate consistency in their preferences for the specific product such as food but sometimes do not. Loewenstein and his colleagues (2001) argued that emotions may direct behaviors more than once, such as at their first occurrence and at a later point in time, since they are affectively encoded as the likely consequences of a particular action, serving as somatic markers. Consistent with this argument, stress experienced in the regulation of emotions through the evaluation of emotional response tendencies with conflicting important goals in an initial choice may be expected to influence sequential choices. In support of this hypothesis, theoretically,

stress is one of the two important precursors to the contemporary study of emotion regulation (Gross, 1998).

3.2 THE ROLE OF EMOTIONS IN CONSUMER BEHAVIOR

“Emotions are ubiquitous throughout marketing”, however little attention has been given to this issue in marketing literature (Bagozzi et al., 1999: 202). Similarly, although many consumption practices and choices may create emotional responses in consumers and emotional goals may also guide consumers’ behaviors, consumer research literature recently have started to devote much attention to the understanding of the role of emotions, and thus, needs more in-depth examinations in various consumption-related areas (Havlena and Holbrook, 1986; Lau-Gesk and Meyers-Levy, 2009; Passyn and Sujjan, 2006).

Consumer behaviors are frequently driven by emotions (Schmitt, 1999; Levav and McGraw, 2009; Passyn and Sujjan, 2006), and feelings and emotional responses are also important aspects of consumer experiences calling for systematic investigations (Bagozzi et al., 2000; Holbrook and Hirschman, 1982; Moschis, 2007). Previous studies in the emotion regulation literature showed that consumers can also have emotional goals, such as feeling good, enjoying life, not feeling anxious about future career plans, avoiding stress while shopping or a combination of different feelings such as enjoying the horror movie and feeling fear simultaneously, that may significantly contribute in explaining many consumer behaviors (e.g., Andrade, 2005; Andrade and Cohen, 2009; Bagozzi et al., 2000; Labroo and Ramanathan, 2007; Levav and McGraw, 2009) and the notion of consumer preference consistency

(e.g., Kahn and Isen, 1993; Lee et al., 2009). Within the goal-directed consumer behavior context, emotions are central to goal setting stage deciding which goal(s) to pursue and to goal striving phase expressing commitment to pursue the chosen goal (Bagozzi et al., 2000). Therefore, it is obvious that advanced empirical studies on the emotional aspects of consumption experiences may help in further understanding consuming situations, choices and preference consistencies.

Lau-Gesk and Meyers-Levy (2009) recently studied the influence of the valence and the resources demands of emotions evoked by ads on consumers' attitudes. They found that under low motivation, when consumers base their attitudes on the valence of emotional appeals, consumers' attitudes are shaped by the extent to which the resources allocated to ad processing matches to those required by the ads. The evaluations of ads inducing mixed emotions are also associated with the sequence of these conflicting feelings and whether consumers evaluate or experience them (Labroo and Ramanathan, 2007). For example, when consumers experience declining emotions, they are more likely to employ positive emotions to enhance their positive feelings for coping with the later negative emotions leading to more favorable attitudes towards the ads.

Likewise, consumers' evaluations of products seem to be influenced by different emotions of the same valence induced by the product claiming specific emotions (Kim et al., 2010). If the product does not make emotional claims, consumers are more likely to engage in affect-congruent judgments. However, for example, if vacation products with adventurous appeals claimed to make consumers feel excited but consumers actually experience peacefulness at the time of the judgment or the

products do not fulfill the intended role of making them feel what has been promised, consumers may evaluate the adventurous vacation product less favorably in terms of being adventurous.

Andrade and Cohen (2009) examined the coactivation of oppositely valenced emotions in order to better understand when and how consumer experience pleasantness when they choose apparently aversive consumption activities such as watching horror movies or engaging in extreme sports. They argued that consumers can simultaneously experience conflicting emotions when they are exposed to apparent aversive stimuli, and these emotions may also motivate them to employ counterhedonistic behaviors. In a related vein, Levav and McGraw (2009) studied when consumers are more likely to feel mixed emotions, both positive and negative feelings, and how this affects their consumption preferences. They hypothesized that when the emotion evoked by a receipt of a sum of money is negative; consumers may prefer to choose utilitarian or virtuous purchases to lessen or launder their negative feelings about the money rather than spending the money on hedonic expenditures.

Consumers' retrospective evaluations of sequential mixed affective experiences may depend on the perceived similarity of sources producing different affect responses (Lau-Gesk, 2005). In particular, when the positive and negative affect are viewed as deriving from multiple and distinct sources, positive affect may have a buffering effect on the negative affect when they are in close temporal proximity, and thus consumers may be more likely to respond favorably to mixed affective experiences. In addition, final improving trend may influence consumers' evaluations when

consumers make comparisons based on similarities among conflicting affective responses derived from the same source and when these mixed emotions are experienced further apart. On the contrary, consumers may also prefer a declining trend of mixed emotions sequence (positive than negative) even a specific source, such as a single ad or an overall ad campaign, evokes these conflicting emotions (Labroo and Ramanathan, 2007). Moreover, since emotions are markers of past experiences guiding future behaviors (Loewenstein et al., 2001) and mixed emotions are elicited during a variety of consumer situations (Passyn and Sujana, 2006), how consumers recall their mixed emotions also determine many of most important events of consumers' lives (Aaker et al., 2008).

Many consumer decisions embrace both emotional and cognitive systems, and consistency of these decisions depends on the relative magnitude of reliance on emotional opposed to cognitive reactions (Lee et al., 2009). Specifically, consumer preference consistency is highly related with greater reliance on emotional responses during decision making process. In terms of cognitive processes, consumers seem to switch more in product choices when positive affect is induced (Kahn and Isen, 1993). Presumably, this is because positive affect leads consumers to explore and try new products in safe and enjoyable consumption circumstances. The role of emotions as significant drivers of consumer behaviors, including extended behaviors as well, has not been satisfactorily explored until now (Passyn and Sujana, 2006), and thus, offers great promises in advancing our understanding of consumer choices especially the ones made in a sequence.

Emotions can be the consequences or the determinants of individuals' decisions (Emmons, 1999; Loewenstein et al., 2001). For instance, if the anticipatory emotions which consumers experienced at the time of making decisions and which are often fairly independent of the consequences of the decision, induce a positive (versus negative) affect state, consumers may evaluate the environment more (versus less) favorably that also promotes (versus inhibits) proactive behaviors such as increased (versus decreased) consumption (Andrade, 2005). Indeed, the feelings of a consumer at a single point in time (static affective evaluation theory), the projected discrepancy between their feelings at two points in time (dynamic affect regulation theory) and also the interaction of these two mechanisms may influence the processing of affective information, its judgment, and ultimately may direct consumers' behavioral intentions and actions (Andrade, 2005). Conceivably, consumers may regulate their emotions in an attempt to improve their performance in the anticipated task demands (Cohen and Andrade, 2004). For instance, consumers may be deliberately willing to remain in a negative affective state and select negative mood-congruent stimuli (e.g., to choose a sad song) to perform better in the forthcoming analytical task (e.g., a challenging cognitive task requiring carefulness, precision, and analytical and logical thinking), namely to achieve an instrumental goal (e.g., to keep the existing state of mind).

Emotions may initiate relevant goal-directed consumer behaviors (Bagozzi et al., 2000). However, in the consumer context, Louro and her colleagues (2005) demonstrated that not all the consumption-related emotions may promote subsequent emotion-congruent behaviors, such as feelings of pride may reduce repurchase intentions at a particular store and this effect is contingent on consumers' self-

regulatory goals. Put otherwise, consumers with high prevention pride seem to repurchase less than those with high promotion pride. However, consumers with low promotion pride and those with low prevention pride may not differ in their repurchase intentions.

Feelings can also mediate, or at least partially mediate, the relationship between cognitive evaluations of consumers and their behavioral response to these evaluations (Loewenstein et al., 2001). Recent research by Chitturi and his colleagues (2007) provided underpinnings for the emotional consequences of making trade-offs between functional and hedonic attributes, and the mediating effect of these emotional consequences on product preferences. They stated that if the options in a choice set meet or exceed both functional and hedonic cutoffs, consumers tend to prefer hedonically superior option, but if the options fail to meet desired cutoffs on at least one attributed dimensions, consumers are more likely to prefer functionally superior option in choice tasks and prefer hedonically superior one in willingness-to-pay tasks. They also showed that emotions evoked in situations involving hedonic versus functional trade-offs partially mediate consumer behaviors. For instance, they proposed that when no available option meets both functional and hedonic cutoffs on at least one attribute, consumers will prefer functionally superior option because they will attempt to minimize negative emotions. On the other hand, when all the available options meet or exceed both functional and hedonic cutoffs, consumers will prefer hedonically superior option to maximize positive emotions. However, they studied how the intensities of emotions preceding (rather than following) the imagination of a choice mediate the eventual choice. Therefore, respondents were asked to indicate the intensity of emotions they would feel first in the trade-off

situations described to them, and then, in the process of deciding which option to select. After these, they were asked to select one of the given options. These emotions preceded the choice, and thus anticipatory in nature. Loewenstein and his collaborators (2001) made a distinction between anticipatory and anticipated emotions. Anticipatory emotions are experienced at the time of decision, whereas anticipated emotions are expected to be experienced in the future when the outcomes are experienced. Although considerable amount of previous studies focus on the role of experienced emotions, recent years have witnessed a growing interest in the study of the impact of anticipatory and anticipated emotions on human behavior in general and consumer behavior in particular (Bagozzi et al., 2000; Loewenstein et al., 2001).

This study is mainly interested in consumers' goal pursuit consistency within the conflicting goals choice situations. Since individuals cope with goal conflicts frequently and these conflicts are sources of stress they experience (Emmons, 1999), this research tries to provide insight into how an experienced stress during an initial choice making may influence goal-directed choices in subsequent decisions. Toward this end, next sections of this chapter briefly explain the stress concept and its relations with goal-directed consumer behaviors.

3.3 STRESS AND GOAL-DIRECTED CONSUMER BEHAVIORS

3.3.1 A Brief Review of Stress Theory

Stress theory has its roots in the works of Selye starting from the early 1950s, the *Annual Report of Stress* (1950) and the book called *The Stress of Life* (1956), when

he first tried to define stress, stressor as he called, systematically (cf. Lazarus and Folkman, 1984). Since then, stress concept has three classic definitional orientations; stimulus, response and relational definitions (see Lazarus and Folkman, 1984, for a detailed review). Psychologists mostly define stress as a stimulus such as hunger, sex, war, imprisonment, relocation, the death of a loved one, giving birth, divorce, taking an important examination, and feeling lonely, having an argument with a spouse. These stress stimuli, or often known as stressors, create environmental, social or internal demand leading people to readjust their usual behavior patterns (Holmes and Rahe, 1967). Thoits (1995) speaks of three types of stressors: life events, chronic strains and daily hassles. Life events refer to acute changes requiring major behavioral readjustments within a relatively short period of time. Chronic events refer to persistent or recurrent demands requiring readjustments within relatively longer time ranges. Daily hassles refer to mini-events requiring small behavioral readjustments during the course of a day such as unexpected visitors or having a good meal. It should be noted that, this research concentrates on stress arises from hassles, the little daily events. This stimulus-based definition focuses on events in the environment and viewed certain external situations normatively stressful. However, this stimulus definition does not take into account the individual difference in the evaluation of these events. Another common definition of stress, mostly embraced by the researchers in biology and medicine was the response definition which emphasizes a state of a stress and identifies stress by responses of a person reacting with stress and being under stress (Lazarus and Folkman, 1984). Yet, this definitional orientation in response terms lacks of explaining what will be a stress stimulus without a reaction.

Finally, relational perspective combines stimulus and response definitions and underlines the importance of the effects of both environmental conditions, in other words stress stimuli, and personal characteristics on defining whether an event is stressful as well as what kind of and which level of reactions occur. By the end of their review, Lazarus and Folkman (1984: 19) defined psychological stress as “a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being”.

Major life changes are often regarded as stressful circumstances (Wheaton, 1990). A thorough literature study of physical and psychological health problems and disorders associated with these stressful life events (Moorman, 2002; Moschis, 2007; Tausig 1982; Thoits, 1995; Wheaton, 1990). It should be mentioned that though stressful life events are necessary predictors of a range of physical and mental illness, they are not the only causes (Tausig, 1982). In general, life event changes within a period of time are therefore likely to overtax one's physical resources and make him/her in danger of illness and injury (Holmes and Rahe, 1967). However, sociologists argued that change is an inevitable characteristic of social life, and rather than change per se, the quality of change determined whether it is harmful or not (Pearlin, 1989). Likewise, compared to the loss of a home by means of a foreclosure, life changes that are undesired, unscheduled, and uncontrollable have higher potential to damage one's life. Events causing major changes in one's life or less dramatic changes in daily hassles either in a positive or negative way can have stressful impacts (Lazarus and Folkman, 1984). Stress process and the impact of stressful events highly depend on the social structure surrounding individuals (Pearlin, 1989). Besides, the differential impact of stressfulness of an event is determined by “the person's accumulated

experience in the role that is altered by the transition” (Wheaton, 1990: 209). For example, individuals may evaluate the degree of stress elicited by a divorce differently depending on whether they perceive their marriage as bad or good. Moreover, individuals cope with stress differently may be because their readiness to react to experiential situations or events as stressful is different (Lazarus and Folkman, 1984). As such, socially disadvantaged individuals (e.g., men) are often vulnerable to specific subset of stressors (e.g., financial or job-related) so that react emotionally (Thoits, 1995). Furthermore, specific life events may conduce to the occurrence of other events (Lee et al., 2001). For instance, death of a loved one may be associated with changes in sleeping habits and, in turn, changes in eating habits (Tausig, 1982).

Lazarus and Folkman (1984: 141) defined coping as “constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exciding the resources of the person”. For instance, people are more likely to engage in superstitious beliefs and behaviors, such as the belief that knocking on wood protects one from the evil eye, when they are under high-stress situations, namely experiencing a high level of psychological stress (Keinan, 1994, 2002). Conceivably, a superstitious behavior seems to be perceived as a way of regaining one’s sense of control (Keinan, 1994, 2002) which is weakened by a stressful condition (Lazarus and Folkman, 1984). Furthermore, individuals who have low tolerance of ambiguity, compared to the ones with high tolerance, may engage in more magical thinking, superstitious beliefs under high stress conditions as a way of reacquiring personal control (Keinan, 1994). Therefore, understanding why consumers experience stress and how they adapt their consumption habits as a way

of coping with it may shed considerable light on the explanation of inconsistency of consumer behaviors in stress-inducing consumption episodes.

3.3.2 The Effects of Stress on Consumer Behaviors

“Although stress research has received increased attention in the behavioral and social sciences, it has been virtually ignored by marketing researchers” (Moschis, 2007: 430). In fact, there is an urgent need in this relatively new consumer research area to understand the reasons consumers experience stress before, during and after consumption-related decisions and the way they cope with this consumption-induced feeling (Duhachek, 2005; Lee et al., 2001; Moorman, 2002; Sujana et al., 1999; Viswanathan et al., 2005).

In a broader sense, stressful life events are positively associated with the changes in consumption-related lifestyles. For instance, life status changes including such as changing residence, getting married or divorced, losing or changing a job, lead to changes in consumption patterns (Andreasen, 1984; Burroughs and Rindfleish, 1997; Lee et al., 2001; Mathur et al., 2003). Notably, these status changes cause stress and, eventually, have significant potential or actual effects on consumers’ behaviors (Andreasen, 1984). As such, stress may decrease the overall satisfaction with product and service purchases, and this can lead to changes in brand preferences of consumers in future. Instead, those consumers may prefer to avoid additional changes and adhere to some of their present patterns as a means of coping with these transitions in their lives. To put it differently, since individuals have different sensitivity and vulnerability to certain types of stressful events, consumers may differ

in their interpretations, reactions and coping strategies (Duhachek, 2005; Lazarus and Folkman, 1984; Lee et al., 2001). Similarly, stressful life events or role transitions may result in patronage-switching preferences such as changes in grocery stores, clothing stores, pharmacies, insurance companies, middle-priced restaurants and product brand preferences (Lee et al., 2001; Mathur et al., 2003). In addition, life events that do not mark transition into new roles (e.g., gaining a lot of weight or conflicting with family members) may also demand for readjustment and create chronic or global stress that results in changing consumption lifestyles as efforts of coping (e.g., starting diet/weight control or exercise program and taking on a new hobby or recreational activity). Yet, transition events seem to entail larger number of changes in behaviors than nontransition events (Lee et al., 2001). By the same token, Burroughs and Rindfleish (1997) argued that, for young people, materialistic consumption may facilitate to cope with stress produced by parental separation or divorce and may help in restoring their sense of control over their lives. On the contrary, materialistic consumption may also create stress (Burroughs and Rindfleish, 2002). In specific, materialism positively affects levels of stress experienced and, which in turn, negatively affects subjective well-being of consumers who have high levels of collective-oriented values such as family and religion.

Beyond the life event changes, consumers invariably engage in making decisions about the choice, purchase and use of products and services in their daily lives (Bettman, et al., 1991), and often experience consumption-related stress in various stages of these decision making processes (Moschis, 2007). These consumer choices, especially the ones involving goal conflicts, such as purchasing a new house or

buying a new car, have been considered as stressful events (Emmons, 1999; Mick and Fournier, 1998; Moorman, 2002; Tausig, 1982). Theoretically, in a goal conflict situation, a person may have interfering goals that he/she wishes to attain simultaneously, and this conflict may try to direct him/her in opposing directions, leading to stress (Emmons, 1999). In addition, a high difference between the subjective importance weights assigned to each of the conflicting attributes linked to higher goals may increase the level of perceived consumption-related stress. For instance, consumption decisions concerning financial expenditures can be viewed as a primary source of stress (Duhachek, 2005), and consistently, budgeting decisions on the priorities of consumption goals may produce conflict and stress (Sujan et al., 1999). Therefore, it may be predicted that in a making choice involving a trade-off between two goals, an increase in the level of trade-off difficulty may exacerbate stress experienced at the moment of choosing.

People vary greatly in the way they cope with stress evoked by these goal conflicts (Emmons, 1999). For instance, consumers may attempt to prioritize one of the conflicting goals, to integrate them, to associate them with higher values or goals, or to give up irreconcilable ones. To cope with consumption-induced stress, consumers may undertake a variety of coping strategies that affect their consumption behaviors and patterns (Andreasen, 1984; Duhachek, 2005; Lee et al., 2001; Luce and Kahn, 1999; Mathur et al., 2003; Mick and Fournier, 1998; Miller et al., 2008; Moorman, 2002; Pavia and Mason, 2004; Viswanathan et al., 2005).

Duhachek (2005) defined coping as "the set of cognitive and behavioral processes initiated by consumers in response to emotionally arousing, stress inducing

interactions with the environment aimed at bringing forth more desirable emotional states and reduced levels of stress." Viswanathan and his colleagues (2005) noted that functionally low-literate consumers who have difficulties in calculating or reading information on the product labels or store signs and labels may experience negative emotions, such as stress and anxiety, over their purchase decisions. Consequently, these consumers often delegate their shopping to family members and other trusted persons as a coping response to the possible negative emotions and stress of shopping in marketplace encounters.

Mick and Fournier (1998) reported that technological paradoxes trigger feelings of conflict and ambivalence that lead to anxiety and stress which will possibly provoke behavioral stress-coping strategies. Since consumers may experience stress before as well as after technological product purchases, in order to cope with technological paradoxes and negative emotions, they may follow different strategies such as pre-acquisition avoidance, pre-acquisition confrontative, consumption avoidance, and consumption confrontative strategies. With respect to manifestations of the accommodation based consumption confrontative strategy, consumers may change their tendencies, preferences, routines in conformity with perceived requirements, abilities, or inabilities of technological possessions. In addition, they highlighted that the degrees of conflict and stress experienced, and the coping strategy employed may be related with the type of the product, situation, or person involved in the process.

Consumers may also engage in stress coping strategies when they have to handle the negative service experience such as dining, banking, flying or keeping dental appointments (Miller et al., 2008). Waiting times and the anticipation of a potentially

negative service experience are the main sources of stress during these negative service encounters. In particular, for a nonnegative, neutral service encounter, waiting period itself is likely to become the most salient stressor, and thus, longer waits are associated with higher levels of stress experienced. In contrast, for negative service encounters, the most salient stressor is likely to be the anticipation of the event itself, and more importantly, waiting time can serve to facilitate consumer coping with the event-based stress.

Moorman (2002) argued that consumer health research could benefit from examining how one's perception of health affects the relationship between a stress inducing event and his/her behavioral response to that. Supporting this view, Luce and Kahn (1999) found that the perceptions of the value of test information following a false-positive result alter upcoming decisions to get retested. Specifically, previous false-positive test result may make people to feel that they may have the malady, namely increased perceived vulnerability, and therefore, they may prefer to be tested for it in the future. Nonetheless, increased perceived test inaccuracy may weaken the positive effect of perceived vulnerability on future compliance unless alternatives to getting retested exist. Most notably, they observed that people are more likely to feel stress derived from possibility of having the particular malady they were being tested and from the notion of the test itself, as they called outcome stress and test stress, respectively, when the test results were false-positive compared to negative. More recently, Pavia and Mason (2004) examined the consumer coping with stress provoked by life-threatening situations such as breast cancer and sustained uncertainty, and the impact of the coping on day-to-day behaviors of consumers. They argued that these events may influence consumers' future choices regarding

such as how to spend their leisure time and to whom to spend with, whether to buy goods for hedonic consumption or how to balance investing versus spending expenditures. Importantly, they stated that consumer facing such a life-threatening illness may engage in various consumer activities and consumption behaviors to replace the loss of control in other dimensions of their lives with the control they have over their consumption decisions. To summarize, stressors, their health effects, the consumption of possessions and experiences to cope with both these stressors and their psychological consequences are fruitful areas for future research (Luce and Kahn, 1999; Moorman, 2002; Pavia and Mason, 2004; Thoits, 1995).

Thoits (1995) stated that the carry-over effect of stress is another promising research direction on stress. He speculated that the effects of stress might spill over into other persons, role domains and stages of life. For instance, stresses at work such as overloads or arguments may be carried over to boost stresses at home. Therefore, the consequences of particular sequences of stress experiences on daily bases seem crucial to understand sequential choice consistency under the effects of consumption-induced stress. In specific, the level of stress experienced during an initial choice may spill over to exacerbate the negative psychological effects of stress experienced at a subsequent choice in the same consumption episode. In a parallel vein, in his pioneering study on stress within the field of marketing, Moschis (2007) suggested to examine how consumption-induced stress experienced at a certain stage of the decision process may affect consumer actions at that stage and also at other stages. For instance, stress induced by choice conflict due to too many choice alternatives at evaluation stage may be carried over to increase stress experienced because of product unavailability at the purchase stage, and eventually lead to greater overall

dissatisfaction with the shopping experiences. However, stress may have positive effects because individuals learn and grow from their negative experiences, may feel motivated to protect and enhance their well-being undermined by stressful events, and may engage in relief events that can help them to recover from negative emotions (Thoits, 1995).

Based on the preceding discussions providing evidence that people tend to change their behaviors in response to stress, it may be expected that consumers may be less likely to be consistent in their sequential choices when they feel more stress in making the initial choice. Furthermore, it may be hypothesized that feeling stress, like guilt or regret, may partially mediate the effect of trade-off difficulty on consistency of consumers' sequential choices in the resolution of goal conflicts.

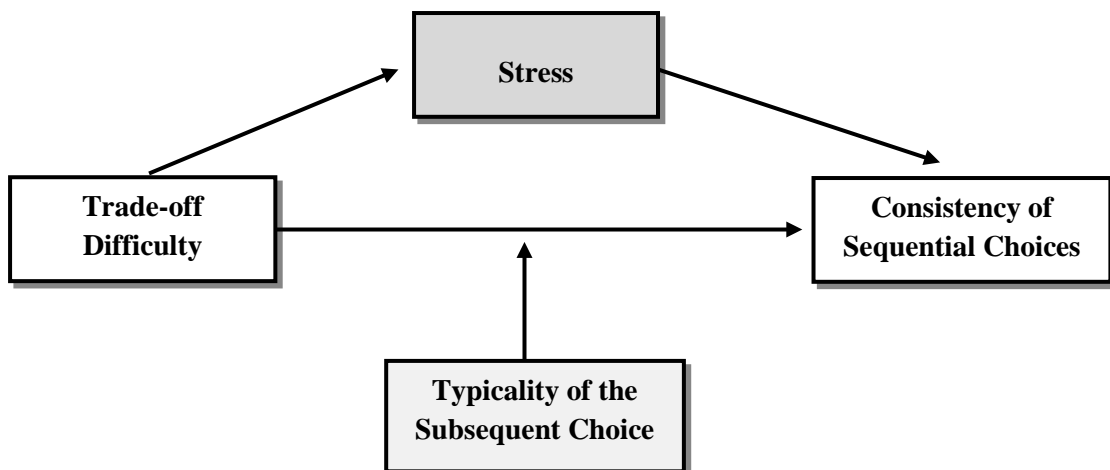
CHAPTER IV

METHODOLOGY

4.1 RESEARCH MODEL AND HYPOTHESES

This thesis embraces a goal-theoretic perspective to understand consumers' management of conflicting goals pursuits in sequential choices context and the underlying processes. With this regard, a comprehensive review on the relevant extant literatures with a special attention to consumer behavior field was presented in the previous chapters. Derived from research opportunities found in this selective literature review, the research model is framed as portrayed in Figure 1.

Figure 1. Research Model



Beyond the other well defined antecedents stated in sequential choices literature, this framework combines the effects of trade-off difficulty, stress experienced during making an initial choice, and subsequent choice typicality to identify the conditions

under which the likelihood of being consistent across sequential choices is attenuated or promoted. Based on this framework, the proposed hypotheses are stated as follows:

Hypothesis I In making sequential choices that involve the same trade-offs between two active goals, consumers are more likely to be consistent across their choices when the trade-off difficulty level is perceived as low than when it is perceived as high.

Hypothesis II The gender of the participants moderates the effect of the trade-off difficulty on sequential choice consistency. Specifically, in low trade-off difficulty choice situations, male participants are more likely to be consistent than females.

Hypothesis III Consumers are likely to feel more stress during making a choice that involves high trade-off difficulty between two active goals compared to during making a choice that involves low trade-off difficulty.

Hypothesis IV Consumers are less likely to be consistent in their sequential choices when they feel more stress during making the initial choice.

Hypothesis V The level of stress experienced partially mediates the effect of trade-off difficulty on sequential choice consistency. Specifically, in low trade-off difficulty choice situations, consumers are likely to feel less stress during making the initial choice and, in turn, be more consistent across their sequential choices.

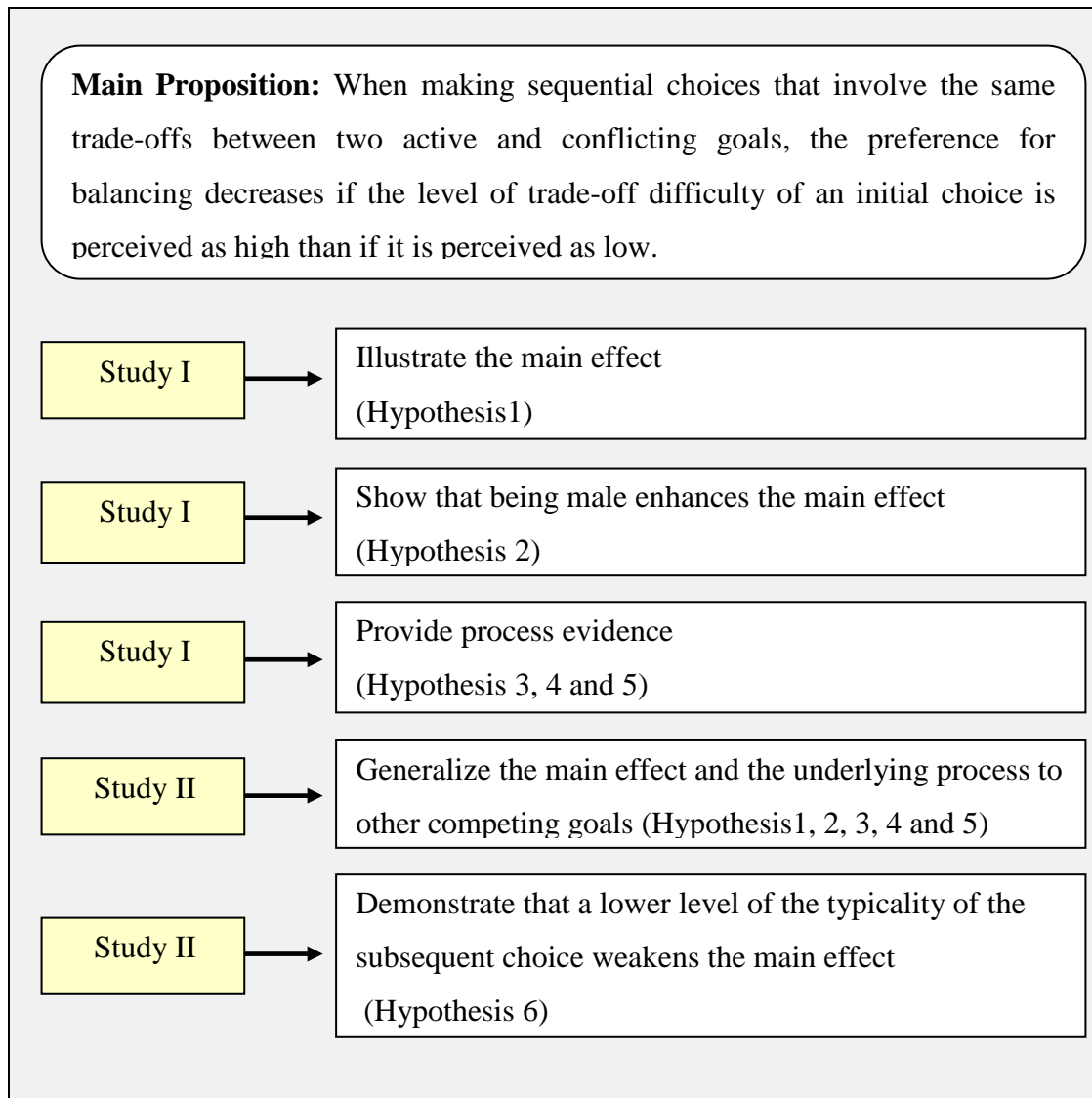
Hypothesis VIa The level of typicality of goal-derived sequential choices category moderates the effect of trade-off difficulty on sequential choice consistency. Specifically, in a low trade-off difficulty choice situation, consumers are less likely to be consistent across their sequential choices when the typicality level of subsequent choice was perceived as low than when it was perceived as high.

Hypothesis VIb The level of typicality of goal-derived sequential choices category moderates the effect of trade-off difficulty on sequential choice consistency. Specifically, in a high trade-off difficulty choice situation, consumers are less likely to be consistent in their sequential choices when the typicality level of subsequent choice was perceived as low than when it was perceived as high.

4.2 RESEARCH DESIGN

The research hypotheses are tested in two different studies comprising making hypothetical sequential choices that involve the same trade-offs between two active and conflicting goals. As depicted in Figure 2, Study I examines the main effect, the underlying mechanism behind this effect, and the predicted moderating effect of the gender of respondents due to the gender of the hypothetical consumer in the experimental scenarios. Study II attempts to conceptually replicate yet also strengthen the findings of the first study by employing another conflicting goals pairs and by investigating the moderating effect of the typicality level of the subsequent choice.

Figure 2. Research Road-Map



4.2.1 Samples

Viswanathan (2005) argued that neither heterogeneous nor homogenous samples lead to a better design, but the choice of a sample of respondents should allow for sufficient variations among variables in an experimental design. Consequently, demographics of respondents such as gender, age, education or income were not perceived as limitations of participation in the experiments. Since drawing truly random samples are very impractical and theoretically very difficult to achieve, if not

impossible (Howell, 2010; Marczyk et al., 2005), convenience sampling method was employed both in the pretests and in the main studies.

In data collection process, prior to gathering data from the field, two interviewers experienced in this data collection technique were briefly informed about the experimental design of the present studies and then trained to eliminate any possible interviewing biases. In addition, to obtain a wider dispersion of demographic characteristics of respondents, the data was collected in three different provinces in Izmir having the possibility of providing diverse levels of constructs in question.

The samples of Pretest I and Pretest II were consisted of 40 and 44 individuals, respectively. Respondents participated in the pretests were drawn from the same population as in the main studies to reach similarities in terms of such as background characteristics, attitudes and behaviors of interest (Malhotra, 2007). All the subjects participated in both pretests and main studies were randomly assigned to experimental conditions. This random assignment of participants in treatment conditions is expected to facilitate causal interpretation by eliminating potential systematic differences across test unit groups caused by extraneous factors associated with the characteristics of the participants (Perdue and Summers, 1986). In addition, main studies are conducted with different samples than the ones used for the pretest in order to eliminate the possible effects of manipulation checks on the dependent measure (Pedhazur and Schmelkin, 1991; Viswanathan, 2005).

There have not been many studies addressing the sample size issue in logistic regression (Hosmer and Lemeshow, 2000). More surprisingly, these limited numbers

of researches have not reached a consensus on how to determine the power and sample size (Demidenko, 2007). For example, Pedhazur (1997) suggested having minimum 30 subjects for each parameter to avoid extreme predictions in regression models. Harrell (2001) also argued that the smaller number of the two binary outcomes should be at least 20 times the number of all candidate predictors. Similarly, Peduzzi and his collaborators (1996) recommended including at least 10 events per variable in the logistic regression analysis to maintain the validity of the model. In general, one of the most frequently used guideline to determine a minimum sample size for a study is the one proposed by Cohen (1988). He emphasized the importance of determining the sample size based on the desired statistical power and effect size of the study. According to Cohen's criteria (1992), an adequate number of total sample size necessary for 0.80 power of a chi-square test for goodness of fit with a large effect size (0.50) at $\alpha = 0.05$ is 26 for a one-cell experiment (1 degrees of freedom) and 44 for a four-cell experiment (3 degrees of freedom).

To conclude, in the first main study, 128 subjects were unevenly assigned to the two experimental groups (64 participants for each cell). In the second main study, each of the four treatment groups has 44 subjects assigned randomly, and thus, total sample size was 136. Both of these two samples of the two studies individually meet the different rules of thumbs about sample size mentioned above.

4.2.2 Experimental Design

Choice experiments received a great deal of attention over the years within the marketing researchers, mainly because of attempting to understand how consumers

make decisions among multiattribute alternatives or competing alternatives in real markets, or more specifically how they will react new product additions or modifications of existing ones in available choice sets (Arora and Huber, 2001; Carson et al., 1994; Green, 1974). Specifically, vignette experiments has been of increasing interest to researchers in various fields such as marketing, psychology, sociology, and education, largely because it incorporates ideas from classical experiments and survey methodology, and thus compensates each approach's weaknesses (Atzmüller and Steiner, 2010).

It has been widely contended that while studying human attitudes, behaviors and judgments utilizing questionnaires and interviews may not be without criticisms (Alexander and Becker, 1978). Significantly, it is noted that the vagueness of questions may lead to unreliable and biased judgments of participants. For avoiding these shortcomings, the use of vignette experiments, a way of standardizing the stimulus within the heterogeneous respondent population, is suggested by many researchers (e.g., Alexander and Becker, 1978; Boyle, 2000; Caro et al., 2011; Havlena and Holbrook, 1986; Hui and Bateson, 1991; Nosanchuk, 1972).

Vignettes can be defined as short hypothetical stories about persons, objects or situations that are presented to respondents to obtain information about their desirable or anticipated responses to these situations (Alexander and Becker, 1978; Atzmüller and Steiner, 2010; Caro et al., 2011; Finch, 1987). In general, participants are asked to respond to these stories, which makes precise reference to significant factors in decision-making or judgment-making processes of these respondents, from their own perspective (e.g., what they would do) or from another person's

perspective (e.g., how they think a third person would do) to that particular situation (Hughes, 1998). One common interest of researchers in social science is the difference between actual and self-reported behaviors of respondents (Hughes, 1998). Responses to hypothetical choices in the written scenarios are thought to provide insights about the participants' actual behaviors in real-life choice situations (Caro et al., 2011; Rahman, 1996). Considering that there is no research tool that can truly reflect real life experiences of people, vignettes aimed at providing an interpretation of the respondents' real life may make valuable contribution to research methodology (Hughes, 1998). Therefore, vignettes are commonly used by social and behavioral scientists in understanding human judgments on complex issues, especially when it is not practical or feasible to study actual behavior (Caro et al., 2011).

Whether a vignette-based experience produces similar responses with real-life experiences or not highly depends on the design of the vignette scenarios (Rahman, 1996). It is underlined that the relevancy and realism of hypothetical stories can have a considerable affect on people's responses to situations presented in the form of vignettes (Barter and Renold, 1999; Carson et al., 1994; Finch, 1987; Hughes, 1998). In this regard, Carson and his colleagues (1994: 355) listed some general rules of data collection in choice experiments: "survey instruments always should be worded in as simple and straight-forward a manner as possible to help ensure respondent comprehension; choice tasks should be designed to be realistic and natural, approximating as closely as possible the actual choice context; and the choices offered should be credible".

Notably, choice experiments continues to attract academic and applied attention in marketing literature since hypothetical choice tasks are believed to succeed in representing the actual behaviors of consumers in the real marketplace (Arora and Huber, 2001). Hence, especially within the context of consumer behavior, the use of a hypothetical consumer (e.g., Mr. A) in written scenarios studying emotional aspects of consumption experiences is advocated by many authors (e.g., Carmon et al., 2003; Havlena and Holbrook, 1986; Hui and Bateson, 1991). Havlena and Holbrook (1986) posited that this methodology prevents issues of facing with different reactions of individuals to specific types of activities. Moreover, Hui and Bateson (1991) found that employing a projective task enables respondents to perceive that the situations described in the scenarios would happen to them (make the situations more real), and thus make easier for them to judge their reactions to these situations.

It should also be noted that when participants were asked about choices of a hypothetical consumer, the behaviors of another person, they are expected to try to make inferences about goal commitment and goal progress which guides subsequent behavior (Laran and Janiszewski, 2009). Thus, an active goal management model should be followed in explaining sequential choice consistency in the presence of goal conflicts rather than a passive goal guidance system.

To conclude, an experimental choice-based methodology utilized in the present studies which is similar to the research designs used in the areas of sequential choices (e.g., Dhar and Simonson, 1999; Khan and Dhar, 2006; Novemsky and Dhar, 2005), and emotional aspects of consumer behaviors (e.g., Andrade, 2005; Andrade and Cohen, 2007; Cohen and Andrade, 2004; Garry, 2007; Lau-Gesk and Meyers-levy, 2009; Lee et al., 2009; Levav and McGraw, 2009; Miller et al., 2008).

4.2.3 Operationalization of Variables

4.2.3.1 Operationalization of the Independent Variables

Neither a standard formal definition of conflict nor a generally accepted procedure for how to measure it exists in psychological literature (Dhar, 1997; Tversky and Shafir, 1992). Nevertheless, in consumer research literature, conflict generated by trade-offs commonly manipulated by varying the relative attractiveness of the available options in the choice sets (e.g., Chatterjee and Heath, 1996; Dhar, 1997; Wang et al., 2010).

Dhar (1997) examined the effect of the number and size of the attribute trade-offs on consumer's tendency to defer choice. To validate the manipulation of trade-off difficulty, constructed as the difference in attractiveness of alternatives in a given set of alternatives, he asked subjects to rate the attractiveness of each option in the choice set on a 9-point scale (1 = not at all attractive to 9 = very attractive). However, Wang and his colleagues (2010) pointed out that there should be distinction between trade-off conflict and general subjective choice difficulty. Following Dhar (1997) trade-off difficulty manipulation, the substitution rate between attributes was kept constant across trade-off conflict conditions but the trade-off distance was varied between options. For instance, in the high-trade-off-conflict choice task, participants chose between three apartment options as: 10 minutes commute distance and \$800 rents per month, 25 minutes commute distance and \$625 rent per month, and 40 minutes commute distance and \$450 rent per month. The options were requiring trading off at least \$175 low rent for at least 15

minutes shorter commute. On the contrary, in the low-trade-off-conflict choice task, the middle option was adjusted to 15 minutes commute distance and \$575 rent per month, implying a trade-off between the first and the middle alternatives requiring a give up 5 minutes shorter commute for \$125 decrease rent per month.

Decision difficulty was commonly measured by a single item on a 7-point scale in consumer research studies. For instance, in a study examining the consumer satisfaction with the decision process and the subsequent store choice behavior as responses to stockouts, Fitzsimons (2000) assessed the difficulty level of making a decision by using a 7-point Likert scale ranging from 1 (not at all difficult) to 7 (extremely difficult). Similarly, when exploring the influence of assortment size on consumer choice options, Sela and his associates (2009) asked respondents, after they made their choices, to rate how difficult was to make a decision of which option to pick on a 7-point Likert scale, where 1 means not at all difficult and 7 means very difficult.

Most notably, Beattie and Barlas (2001) examined perceived decision difficulty derived from trade-off difficulty by focusing on particularly the comparability and substitutability of the attribute or object pairs. Respondents were asked to read a short story describing a tradeoff between two alternatives, and then to rate the difficulty of the decision on a continuous scale running from -20 (extremely easy) to 0 (neutral) to +20 (extremely difficult).

Since the main proposition of the current study is related with the trade-off difficulty generated by conflicting goals, not by the size of the trade-off conflict, the level of

each attribute was intentionally not given in concrete terms. These vague levels were also expected to avoid the possible impacts of participants' indifference points on evaluating the level of trade-off difficulty (Beattie and Barlas, 2001).

In addition, Festinger (1956), and Thompson and her colleagues (2009) measured decision difficulty involving tradeoffs by asking two similar questions. Festinger (1956) first asked the respondents to rate the difficulty of making a decision in a given choice situation and then to rate how confident they were that their decision was a good one. Likewise, Thompson and her associates (2009) asked participants to rate the difficulty of choosing between the options (not difficult/very difficult) and their confidence in their decisions (not confident/very confident, reverse coded) on 7-point Likert scales.

Therefore, following Beattie and Barlas (2001), Festinger (1956), and Thompson and her colleagues (2009), as a manipulation check, respondents were asked to rate how difficult would be for Mr. A to decide which alternative to choose (e.g., for food or restaurant), and to rate the extent to which Mr. A would be confident in his choice, on 7-point scales.

4.2.3.2 Operationalization of Moderating Variable

In the literature, typicality construct has been frequently measured by asking participants to rate item(s) mostly on a single-scale with end points of “best example/worst example”, “extremely good example/extremely poor example”, “not a

member/excellent (typical) member”, “representative/unrepresentative” or “typical/atypical”.

One of the earliest example of a study on semantic categorization measured typicality by simply asking subjects to rate how related each instance-pair (e.g., robin-bird), and also proved that relatedness and typicality are closely related (Rips et al., 1973).

In an experiment to test whether some instances of ad hoc categories posses graded structure, Barsalou (1983) first directed respondents to read a vignette with a category label and the accompanying six items. Then, they were asked to circle those belonging to the given category label and to rank those six items from the best example of the category to the worst. Similarly, in another research on consumer subcategory creation conducted by Lajos and his colleagues (2009), in a pretest subjects were asked to rate the extent to which a list of several subcategories belongs to the particular broad, parent categories on a 9-point scale. Correspondingly, in a study on category generation and category similarity ratings, subjects were given a number of food instances and category names, and then they were asked to rate how good an instance of the category each item is on a 7-point scale with three labels where a 0 means that the instance is not a member of the category, a 3 means that the instance is a fairly good member of the category and a 7 means that the instance is an excellent member of the category (Ross and Murphy, 1999). Likewise, Loken and Wald (1987) asked subjects to judge how good an example of the each shampoo brand in the category with various brands on a 10-point scale anchored by “extremely poor example” and “extremely good example” end points. In the same

way, Ratneshwar and Socker (1991) measured typicality by asking respondents to judge how good an example each product was of the given category on a 9-point scale with the same end points. In a similar study on understanding the role of familiarity in determining typicality, subjects were asked to rate each member for how typical an example of the given category it was on a scale of 1 to 7, with 7 indicating highest typicality (Malt and Smith, 1982).

Finally, in a research on understanding the determinants of typicality, global typicality construct was measured by a three-item scale: exemplar goodness, typicality, and representativeness (Loken and Wald, 1990). To measure exemplar goodness for each of the category members, subjects were asked to rate how good an example of its category each product was on a scale ranging from 1 (extremely poor example) to 10 (extremely good example).

Consequently, following Barsalou (1983), in the second study to evaluate the perceived goal-derived sequential choice category typicality, after completing questions about perceived choice difficulty, participants were asked to indicate the extent to which the second choice (cafe or theater play) belong to the goal-derived choices category aimed at a specific goal (saving money, getting pleasure and or both), and to rate how good example of the second choice for that category. Both of the items used 7-point scales (1= completely agree/the best example of the category and 7 = completely disagree/ the worst example of the category).

4.2.3.3 Operationalization of the Mediating variable

In consumer behavior research area, emotions are most commonly assessed by a single item asking the extent to which participants feel various types of emotions under different conditions (e.g., when consumers are lowly motivated or highly motivated) at different times (e.g., before or after a choice) (e.g., Andrade, 2005; Andrade and Cohen, 2007; Cohen and Andrade, 2004; Garry, 2007; Labroo and Ramanathan, 2008; Lau-Gesk and Meyers-levy, 2009; Levav and McGraw, 2009; Williams and Aaker, 2002). Likewise, the single-item scale measurement of stress experienced during a consumption decision was guided by previous consumer studies presented below. It should be underlined that throughout their review, Casserta and Lund (1992) pointed out that utilizing single-item stress scales was both practical and predictive in social science research, and these scales were also proved to have construct and face validity.

In a retail patronage study focusing on changes in patronage preferences of consumers, acute and global stress experienced were measured by a single item on a 7-point scale with end points of “terribly stressful” to “not at all stressful” (Lee et al., 2001). Regarding acute stress, participants were first asked to indicate whether or not they experienced 25 events in the past 6 months, in the past 6 to 12 months, and more than 12 months ago. Then, for each event the respondents marked as experienced during the previous 6 months, they were asked to indicate whether or not the experience of it was stressful. Similarly, global stress was also measured by a single question asking respondents to indicate how stressful their lives had been in the previous 6 months, with the same 7-point scale.

Miller and her associates (2008) examined the impact of waiting time on consumers coping strategies with stressful service experiences. Participants were told that they would take part in a discussion group in another room but the room was not quite ready, and were asked to wait in front of their computers. After all the respondents were notified that the room was almost ready, they were asked for dependent measures. To measure the total stress participants experienced, they asked to rate how stressful was their wait and how nervous they were about the discussion group (0 = not at all stressful and not at all nervous, 10 = very stressful and very nervous).

In studying consumers' health related sequential choices in the context of medical retesting, two kinds of stress was measured: outcome stress and test stress (Luce and Kahn, 1999). Respondents asked to indicate how stressful it was for them to think about "getting tested for chlamydia" associated with outcome stress and "being diagnosed with Chlamydia" associated with test stress. The ratings were calculated on 100-point scales through a scroll bar with verbal scale end points.

Keinan (2002) asked the respondents to rate the extent to they felt stress "at this moment" on a 9-point scale ranging from 1 (not stressed at all) to 9 (very stressed). This measurement of subjective stress of the participants under experimental conditions was argued to be highly related with the frequency of superstitious behavior respondents would engage in.

In measuring the emotions induced by difficult decisions, Luce and her colleagues (1997) asked participants to rate several emotions including stressfulness, immediately after each decision they made. Following their measurement, in the

present studies, after respondents indicate an initial choice on behalf of Mr. A, they were asked to specify the degree to which Mr. A would feel stress while making the decision on a 7-point Likert-type scale.

4.2.3.4 Operationalization of the Dependent Variable

In the present studies, like most of the research focusing on sequential choices, participants were asked to make two choices in a sequence, and then, whether or not they switch was identified. Although, the present research was built on the Dhar and Simons's (1999) previous work, the simultaneous context of choice pairs was adapted into a sequential context. In addition, "no option" alternative was excluded because present research is interested in the likelihood of consumers being either consistent or inconsistent across their sequential choices. Therefore, participants were forced to make a choice in both of the sequential choices. Detailed information on the adaptation of experimental scenarios is provided in the following part.

4.3 Stimulus Materials

The six proposed hypotheses were tested in two different experiments that adopted a similar procedure used in the majority of studies focusing on goal consistency in sequential choices literature (e.g., Dhar and Simonson, 1999; Novemsky and Dhar, 2005). With this regard, in both of the experiments, written scenarios were employed to describe two different choice situations in which the level of trade-off difficulty was manipulated as either high or low.

In a recent study, Beattie and Barlas (2001) examined the difficulty of making tradeoffs. One of the examples of the short stories the respondents were exposed to is given below.

Decisions only for Oneself Story: You have a term paper due tomorrow. You have an eye infection and have been told not to do any reading or writing, but if you leave the paper your grade will suffer (Alternative 1: You are out in pain and Alternative 2: You get a worse grade).

Then, subjects were asked to rate the importance of the first alternative for them, as well as the importance of the second alternative. The findings demonstrated that importance of the alternatives was highly related with decision difficulty. Therefore, the relative importance of conflicting goals was used to diagnose trade-off difficulty levels in the present research. However, the influence of the importance of conflicting goals on trade-off difficulty was not measured by self-reports of respondents but was manipulated in experimental scenarios by either priming one of the goals or valuing both equally.

The general structure and choice alternatives were adapted from the study of Dhar and Simonson (1999: 32) considering a choice involving a trade-off between two active goals. In their studies, they followed simultaneous choice formats with the use of a hypothetical figure “Mr. A”. To illustrate how they created consumption episodes involving a trade-off between two active goals, the “Dessert” scenario they used is provided in the following.

Dessert Scenario: Assume that Mr. A is considering having some dessert after dinner at a nice restaurant. Mr. A eats out frequently, eating low-fat, healthy desserts on some occasions and rich, tastier desserts on other occasions. Consider his two recent trips to a restaurant: On one occasion, Mr. A had a main course of tasty but unhealthy New York steak. On another occasion, Mr. A had a main course of healthy but not as tasty low-fat pasta dish. On each occasion, after the main course, Mr. A is deciding between two desserts: a great tasting but high-fat chocolate cake and a low-fat seasonal fruit salad. When is Mr. A more likely to order the great tasting but fatty chocolate cake—when he just had a tasty, unhealthy steak or when he had a healthy, less tasty pasta dish? (The options were; Tasty Steak, Healthy Steak and No Difference)

The sequential choices situation described in this scenario has three important characteristics; choice items are consumed in the same consumption episode (the hypothetical consumer makes a dessert choice after the main course when he goes to restaurant), they are evaluated on two dimensions (health and pleasure), and each choice options has two levels (high and low). In the current study, the same characteristics were employed in the development of the first scenario used in the first main experiment. However, since the level of stress experienced in making an initial choice and its effect on the subsequent choice were the interests of this study, sequential choices were made in only one consumption episode and separately. In the original scenario, respondents were exposed to two consumption episodes (two visits to a restaurant) involving two sequential choices (main course and dessert). One of the key points to note is that, the researchers utilized different versions of the

hypothetical figure in the vignette such as Mr. A, Mr. and Ms. A, Messrs. A and B, and respondent, and employed a simultaneous as well as sequential choice formats but they indicated that the results were consistent across all versions. Moreover, there was no difference between the findings of the hypothetical choice and real choice designs. As a result, the following “Pleasure-Health Conflicting Goals” scenario was developed.

Pleasure-Health Conflicting Goals Scenario: Assume that Mr. A frequently eats his dinner out at the weekends, and usually finishes his meal with a dessert. In terms of foods, Mr. A gives much more importance to its tastiness than its healthiness. Considering one of his trips to a nice restaurant, the dishes in the menu range from being tasty but high-fat (such as pizza, pasta with cream, chocolate cake and baklava) to those that are low-fat but less tasty (such as vegetables, low-fat pasta, sugar-free ice-cream and fresh fruit salads).

Participants in the high trade difficulty choice situation, read the second sentence as: “In terms of foods, Mr. A gives importance to both its tastiness and its healthiness”.

The same principle was employed in designing the second written vignette which was used in the second experiment. This scenario was developed by modifying the one used in the first experiment. The dessert choice was changed with an entertainment activity choice adapted from the following parts of the “Entertainment Plans” scenarios developed by Dhar and Simonson (1999: 34, 38).

Entertainment Plans Scenario 1: Assume that Mr. and Ms. A frequently go to the city for entertainment. Consider their plans for the next two weekends: On one weekend, Mr. and Ms. are planning to see a play that received rave views and was described as one of the best plays of the year. Buying tickets for this play before the show will require a wait of approximately 40 minutes. On another weekend, Mr. and Ms. A are planning to see a lesser-known play that received good but not exceptional reviews. Buying tickets for this play will require little or no wait.

Entertainment Plans Scenario 2: Assume that Mr. A and Mr. B are equally wealthy but differ in their attitude toward money. Mr. A thinks of money just as a means or a resource for achieving his different goals (such as entertainment, travel, and so forth). Conversely, Mr. B's goal in life is to be rich and make as much money as possible (even if he does not need the money). Both Mr. A and Mr. B frequently go to the city for entertainment. Afterward, they dine out, going to gourmet, expensive restaurants on some occasions and standard, moderately priced restaurants on other occasions.

In the first original scenario, the choice involved a trade-off between a goal (pleasure) and a resource (waiting time). On the contrary, in the second original scenario money was framed as a goal instead of a resource. In both situations, the choice alternatives varied on these two attributes and they were highly conflicted. To describe a trade-off between two conflicting goals, the second scenario was designed as making sequential choices involving a pleasure-thrift conflicting goals in food and entertainment domains. The “Pleasure-Thrift Conflicting Goals” scenario utilized in the second experiment is provided below.

Pleasure-Thrift Conflicting Goals Scenario: Assume that Mr. A often goes out at the weekends. He usually goes to a restaurant for dinner and then sometimes goes to a theatre. During the days Mr. A spends his time out, he gives much more importance to saving money than enjoying the time. Consider his plans for this weekend; he might go to a gourmet, expensive restaurant or a standard, moderately expensive restaurant for dinner. In regard to a theater play, he might go to a play that was described as one of the best plays of the year and its tickets are sold at higher prices or a play that received both good and bad reviews and its tickets are sold at more economical prices.

In the high trade-off difficulty choice situation, the second sentence was modified as: “During the days Mr. A spends his time out, he gives importance to both saving money and enjoying the time”. In terms of typicality, after making the same initial choice, half of the participants made a highly typical goal-derived subsequent choice (restaurant choice followed by a café choice), and the rest made a lowly typical one (restaurant choice followed by a theater play choice). The level of subsequent choice typicality manipulation was tested before the main studies in a separate pretest.

Food domain is chosen for the investigation of the main effect in the first study because it is a complex real-world domain that people interact with daily (Ross and Murphy, 1999). Besides, the conflict between pleasure and health goals is a common research domain in the goal management literature (e.g., Laran and Janiszewski, 2008; Laran, 2010). Another commonplace consumer goal conflict may derive from budget constraints when consumers seek multiple product benefits, namely goals,

which cannot be attained concurrently by a single product within a distinct category (Ratneshwar et al., 1996). Therefore, to generalize the main effect to goals other than health and pleasure, saving money/thrift and having pleasure goal-based choice conflict pair is used in the second study.

4.4 GENERAL PROCEDURES

As mentioned above, the written scenarios were developed to describe a hypothetical choice task that involved making sequential choices in the same consumption episode, and these generic choice situations were designed in a way to reflect different levels of trade-off difficulty (high and low). Additionally, each choice alternative had two goal-related dimensions (taste-health and taste-thrift) with two possible levels (high and low).

Before the main studies as well as pretests, the cover story, written scenarios, survey questions and their Turkish translations were reviewed by a group of 10 members of the Faculty of Economics and Administrative Sciences at Izmir University of Economics. Indeed, after they completed the questionnaire, they were either interviewed individually or with other judges. The general wording, grammar, translations of the scenarios, and adaptation of questions and scales to Turkish were ameliorated during these interviews.

In the main studies, participants were randomly assigned to different experimental manipulated conditions. Then, the written scenarios and relevant questions starting with a cover story were presented to them. On the first page, participants were asked

to read the cover page which stated that the researcher was interested in understanding consumer decisions and the emotions evoked by these decisions. In the cover story, they were also asked to read the scenario on the next page carefully and then answered the following questions. It was also emphasized that there were no “right” or “wrong” answers, and their choices and opinions with regard to the situation described in the scenario were of the interests of the study. The next two pages were consisted of the scenario and the relevant questions. At the end of all questions, after participants were asked to answer demographic questions, they were warmly thanked for their participation.

First main study consisted of two scenarios, each corresponding to the high or low level of trade-off difficulty. In the written vignettes, a hypothetical consumer faced with two series of binary choices. For each choice pair, the hypothetical consumer “Mr. A” had to evaluate the two alternatives. Following the procedures mentioned above, after reading these vignettes, participants were asked to indicate which main course option Mr. A would be more likely to select. Next, they were asked to rate the extent to which Mr. A would have felt stress in making that choice. Then, on the next page, they were asked about the second likely choice of Mr. A within the two dessert options. Furthermore, half of the participants in the low trade-off difficulty condition read the scenario priming the health-related goal and the rest read the same scenario with a modification of priming pleasure-related goal. The impact of goal-based priming manipulation within the low trade-off difficulty situations on choice consistency was also tested.

In the second main study, while all the subjects read the same basic scenario, four different vignette versions were formed by manipulating (1) the degree of the trade-off difficulty (high/low), and (2) typicality of the subsequent choice (high/low). In a similar manner to how experimental procedure was conducted in the first study, participants of the second main study were asked to indicate which main course option Mr. A would be more likely to select and then to rate the extent to which Mr. A would have felt stress in making that choice. Then, on the next page, they were asked about the second likely choice of Mr. A within two theatre play options. Similar to the previous study, the impact of pleasure versus saving money goal priming within the low trade-off subgroups on the likelihood of being consistent across sequential choices was analyzed.

Examples of the questionnaires distributed to the two experimental groups in the first study and to the four treatment groups in the second study are presented in Appendix I and Appendix II, respectively.

4.5 DATA ANALYSIS

In both of the manipulation checks, the Mann-Whitney U Tests were run to test for the differences between the two independent trade-off difficulty groups (high and low) on a continuous measure of trade-off difficulty (Siegel, 1957). Reliability tests were also conducted for the trade-off difficulty variable measured by two items.

Logistic regressions were employed to test for the main proposition in both of the experiments. Since our dependent variable, sequential choice consistency is

dichotomous in nature (either consistent or inconsistent); a logistic regression was performed to assess the impacts of trade-off difficulty, typicality and their interactions on sequential choice consistency. Preliminary analyses were conducted to ensure no violation of the assumptions of the sample size and the nature of the sample (Hosmer and Lemeshow, 2000; Menard, 1995). In addition, to explore how well trade-off difficulty levels are able to predict scores on a measure of perceived stress, linear regression analyses were performed.

Then, mediation analyses were performed to test for the mediating effect of stress in sequential choice consistency. According to Baron and Kenny (1986), to establish mediation, the following three conditions must be met: first, the independent variable must affect the mediator; second, the independent variable must affect the dependent variable; and third, the mediator must affect the dependent variable. The strongest demonstration of mediation effect occurs if the effect of the independent variable on the dependent variable becomes insignificant when the mediator is included in the regression analysis. If the effect of the independent variable on the dependent variable continues to be significant but declines in magnitude, this indicates that there is more than one mediating factors. The former designates a perfect mediation whereas the latter implies a partial mediation. Since many psychological and social phenomena are caused by multiple factors, trying to find evidence for multiple mediating factors rather than a single, dominant mediator may seem to be a more realistic goal (Baron and Kenny, 1986; Judd and Kenny, 1981), particularly in understanding consumer behaviors. As a result, a series of regression analyses were performed to test whether stress partially mediated sequential choice consistency.

As recommended (Baron and Kenny, 1986; Judd and Kenny, 1981), first, a logistic regression analysis was conducted to test the relationship between the categorical independent variable and the categorical dependent variable. Second, given the continuous nature of our mediator variables, a linear regression analysis was performed to test the relationships between the independent variable and the mediator. Third, another logistic regression analysis was used to test the relationships between the mediator and the dependent variable after controlling for independent variable, and also to assess the change in the relationship between the independent variable and the dependent variable. In addition to logistic regressions, due to the fact that the mediator is a continuous variable, linear regression analyses were conducted to measure the impact of trade-off conflict difficulty on stress in both of the experiments. Furthermore, Sobel tests were performed to attest the validity of the findings of the indirect effect of the independent variable on the dependent variable through the mediator (Baron and Kenny, 1986; Hayes, 2009).

All statistical analyses were conducted by using SPSS version 17.0 (the Statistical Package for Social Sciences). It should be noted that data screening was done prior to analyses to check for coding errors and for outliers. Later, the violation of the underlying assumptions of the statistical techniques were tested before interpreting the results of the concerning analyses.

4.6 PRELIMINARY STUDIES AND THE FINDINGS

In experimental designs, different levels of an independent variable are produced through manipulations, and then manipulation checks are conducted to see whether

effective manipulations are created or not (Viswanathan, 2005). It is widely accepted that manipulation checks provide invaluable contributions in the theoretical explanations of consumer behaviors (Sawyer et al., 1995). Although conflicting approaches exist in the experimental theory testing regarding to the timing and ordering of the manipulation checks, they appear to provide more valuable information when carried out before the main experiment (Perdue and Summers, 1986), especially when the manipulation has not been replicated many times by previous studies (Sawyer et al., 1995). An ideal manipulation may be achieved when the respondents are not aware of the measured or the manipulated construct, or the relationship being studied (Viswanathan, 2005). Many researchers suggested to conduct manipulations checks in a pretest and/or in the pilot-testing phases of an experiment to be able to modify a poorly or an inappropriately designed manipulation (e.g., Pedhazur and Schmelkin, 1991; Perdue and Summers, 1986; Viswanathan, 2005). For this reason, prior to conducting the main studies, two pretests were employed to test the independent variable(s) manipulation(s) (trade-off difficulty and typicality of the subsequent choice), and also to assess the perceived realism of the scenarios.

It is extremely important to conduct manipulations with the same procedures, experimental instruments, and subject types as the main experiment (Malhotra, 2007; Perdue and Summers, 1986). Therefore, the pretests were designed and the data was collected in the same way as the main studies. However, the manipulation checks were carried out with samples different than the ones used for the main studies to eliminate possible influences of manipulation checks on the dependent variable(s), as pointed out by Pedhazur and Schmelkin (1991). Therefore, both of the pretests were

conducted with separate groups of subjects drawn from the same participation pool as those taking part in the main studies and followed the same procedures.

It should be noted that in the pretests, respondents read the same scenarios and cover stories with small modifications such as the time needed to complete the survey, which were planned to be used in the main studies. At the end of the questions, participants were asked to share their ideas and opinions with regard to the scenarios and the questions explicitly. Based on these feedbacks, small modifications were made when necessary.

Finally, examples of the questionnaires distributed to experimental groups in the first and second pretests are presented in Appendix III and Appendix IV, respectively. In the next section, the findings of the analyses for both of the pretests are discussed separately.

4.6.1 Pretest I

It was assumed that participants who were asked to make a choice involving a difficult trade-off between two conflicting goals would evaluate making this decision more difficult than participants who were exposed to a lower level of trade-off difficulty choice task. To provide evidence for this assumption, 40 representatives of the same population as in the main Study I participated in the Pretest I. Half of the subjects were exposed to high trade-off difficulty condition and the other half to low trade-off difficulty condition. All participants were randomly assigned to their groups to read the three scenarios consisting of a high trade-off difficulty condition

involving equally important conflicting goals, and low trade-off difficulty conditions in which one of the conflicting goal, either health or pleasure, was primed. To ensure that the type of goal primed (vice versus virtue) did not influence trade-off difficulty; an additional test of the trade-off difficulty manipulation was conducted for low trade-off difficulty choice situations reached by priming health versus by priming taste. After reading the health-pleasure goals scenario, participants rated the difficulty of choosing between two alternatives in the first of the sequential choices (not difficult/very difficult) and their confidence in their decisions (not confident/very confident, reverse coded). Both items used 7-point scales. Each participant's ratings on the two items were averaged to form a perceived trade-off difficulty score. The internal consistency of this scale was explored by checking its reliability. While measuring the reliability of a scale, DeVilles (2003) suggested a value of .70 as a lower acceptance bound of Cronbach's alpha. The reliability test statistics showed that the Cronbach's alpha coefficient of the perceived trade-off difficulty scale was .92, indicating that the scale was highly reliable ($M_{Difficulty} = 4.03$ and $M_{Confidence} = 4.05$). The results are displayed in Table 1 and Table 2.

Table 1. Reliability Statistics of the Perceived Trade-Off Difficulty Scale for Pretest I

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.924	.930	2

Table 2. Item Statistics of the Perceived Trade-Off Difficulty Scale for Pretest I

	Item Statistics			Inter-Item Correlation Matrix	
	Mean	Std. Deviation	N	Difficulty	Confidence
Difficulty	4.03	2.019	40	1.000	.869
Confidence	4.05	1.724	40	.869	1.000

A Mann-Whitney U test revealed a significance difference between high trade-off difficulty ($Md_{HTD} = 5.25$) and low trade-off difficulty manipulations ($Md_{LTD} = 2.50$), $U = 31.500$, $p < .001$. As shown in Table 3 and Table 4, respondents reported that making a choice was more difficult in high trade-off difficulty condition compared to the ones in low trade-off difficulty condition.

Table 3. Descriptive Statistics of Perceived Trade-Off Difficulty Groups for Pretest I

	Groups	N	Median	Mean	Std. Deviation	Mean Rank	Sum of Ranks
Perceived Trade-off Difficulty	Low	20	2.50	2.65	1.348	12.08	241.50
	High	20	5.25	5.42	.921	28.93	578.50
	Total	40	4.50	4.03	1.809		

Table 4. Mann-Whitney Test Statistics of Perceived Trade-Off Difficulty Groups for Pretest I

	Perceived Trade-off Difficulty
Mann-Whitney U	31.500
Wilcoxon W	241.500
Z	-4.582
Asymp. Sig. (2-tailed)	.000

In addition, a control test was conducted to show that there is no significant difference in perceived trade-off difficulty levels of the two low trade-off difficulty goal priming subgroups. As expected, participants' ratings of trade-off difficulty in low trade-off difficulty subgroups created by priming health and by priming pleasure did not differ ($Md_{Health} = 2.25$ vs. $Md_{Pleasure} = 2.50$, $U = 49.000$, $p = .939$). The statistical findings are presented in Table 5 and Table 6.

Table 5. Descriptive Statistics of Low Trade-Off Difficulty Subgroups for Pretest I

Subgroups	N	Median	Mean	Std. Deviation	Mean Rank	Sum of Ranks
LTD By Priming Health	10	2.25	2.90	1.744	10.60	106.00
By Priming Pleasure	10	2.50	2.40	.809	10.40	104.00
Total	20	2.50	2.65	1.348		

Note: LTD refers to low trade-off difficulty

Table 6. Mann-Whitney Test Statistics for Perceived Trade-Off Difficulty of Low Trade-Off Difficulty Subgroups for Pretest I

	Perceived Trade-off Difficulty Subgroups
Mann-Whitney U	49.000
Wilcoxon W	104.000
Z	-.077
Asymp. Sig. (2-tailed)	.939
Exact Sig. [2*(1-tailed Sig.)]	.971 ^a

a. Not corrected for ties.

The design of vignette experiments enables to study important vignette factors in causal investigations of respondent judgments in contextualized but hypothetical vignette settings (Atzmüller and Steiner, 2010). As mentioned before, the literature stressed the importance of vignette scenarios to be relevant and real for respondents (e.g., Alexander and Becker, 1978; Atzmüller and Steiner, 2010; Barter and Renold, 1999; Carson et al., 1994; Finch, 1987; Hughes, 1998). Therefore, in the last part of the manipulation checks, the perceived realism of the vignette scenarios tested whether the hypothetical stories appeared as real to respondents as intended.

To evaluate the perceived realism of the scenarios, participants were asked to respond to the item “I believe the situations described in the scenario can actually happen in real life” on a 7-point Likert scale (1=strongly agree and 7=strongly disagree) (Sundaram and Webster, 1999). Previous studies within a marketing

context posed similar questions with this regard such as the study of Webster and Sundaram (1998) examining the effects of service type, service failure, and service criticality on customer satisfaction and loyalty, the work of Garry (2007) on the effects of consumer sophistication and affective reactions to service encounter on customer satisfaction, the research of Schoefer and Ennew (2005) studying the emotional responses of consumers to service complaint experiences and the investigation of Labroo and Patrick (2009) on the effects of mood on consumer judgment and information processing. Perceived realism of the scenarios test indicated a mean score of 6.03 suggesting that the participants perceived the scenarios to be highly realistic, as illustrated in the third column of the Table 7. Moreover, Mann-Whitney *U* test results, presented in Table 7 and Table 8, illustrated no significance difference in the perceived realism levels of respondents in low ($M_{LTD} = 6.10$, and $Md_{LTD} = 6$) and high trade-off difficulty treatments ($M_{HTD} = 5.95$, and $Md_{HTD} = 6$), $U = 163500$, $p = .264$.

Table 7. Descriptive Statistics of Perceived Realism for Pretest I

Groups		N	Mean	Std. Deviation	Median
Perceived Realism	Low Trade-off Difficulty	20	6.10	1.294	6.00
	High Trade-off Difficulty	20	5.95	.945	6.00
	Total	40	6.03	1.121	6.00

Table 8. Mann-Whitney Test Statistics of Perceived Realism for Pretest I

	Perceived Realism
Mann-Whitney U	163.500
Wilcoxon W	373.500
Z	-1.116
Asymp. Sig. (2-tailed)	.264
Exact Sig. [2*(1-tailed Sig.)]	.327 ^a

a. Not corrected for ties.

4.6.2 Pretest II

In order to validate the trade-off difficulty and subsequent choice typicality manipulations for the second experiment, a separate group of 44 participants were drawn from the same population of the second main study. Perceived choice difficulty was manipulated in a similar manner that was followed in the first pretest, and also the same manipulation checks were conducted for both perceived choice difficulty and perceived realism of the scenarios.

First of all, the averaged ratings on the two perceived choice difficulty items, which was found to be highly reliable (Cronbach's alpha = 0.894, $M_{Difficulty} = 4.02$ and $M_{Confidence} = 3.95$), illustrated that participants perceive a choice involving a trade-off between two active goals more difficulty when the goals were equally valued ($Md_{HTD} = 5$) than when one of the goals was primed in the same choice task ($Md_{LTD} = 2.5$), $U = 38.500$, $p < .001$. The results are displayed in Table 9 through Table 12.

Table 9. Reliability Statistics of the Perceived Trade-Off Difficulty Scale for Pretest II

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.894	.900	2

Table 10. Item Statistics of the Perceived Trade-Off Difficulty Scale for Pretest II

	Item Statistics			Inter-Item Correlation Matrix	
	Mean	Std. Deviation	N	Difficulty	Confidence
Difficulty	4.02	1.959	44	1.000	.818
Confidence	3.95	1.684	44	.818	1.000

Table 11. Descriptive Statistics of Perceived Trade-Off Difficulty Groups for Pretest II

	Groups	N	Median	Mean	Std. Deviation	Mean Rank	Sum of Ranks
Perceived Trade-off Difficulty	Low	22	2.50	2.68	1.286	13.25	291.50
	High	22	5.00	5.29	.971	31.75	698.50
	Total	44	4.25	3.98	1.737		

Table 12. Mann-Whitney Test Statistics of Perceived Trade-Off Difficulty Groups for Pretest II

	Perceived Trade-off Difficulty
Mann-Whitney U	38.500
Wilcoxon W	291.500
Z	-4.799
Asymp. Sig. (2-tailed)	.000

As mentioned previously there were 44 participants in the second pretest, and half of whom were exposed to priming pleasure goal subgroup and half to priming saving money goal subgroup within the low trade-off difficulty group. As expected, constructing low trade-off difficulty condition by either pleasure or saving money goals did not make any statistically significant difference on participants' ratings of perceived trade-off difficulty levels ($Md_{\text{Pleasure}} = 2.50$ vs. $Md_{\text{Saving money}} = 2.50$, $U = 58.500$, $p = .894$). The results are depicted in Table 13 and Table 14.

Table 13. Descriptive Statistics of Low Trade-Off Difficulty Subgroups for Pretest II

	Subgroups	N	Median	Mean	Std. Deviation	Mean Rank	Sum of Ranks
LTD	By Priming Pleasure	11	2.50	2.91	1.656	11.68	128.50
	By Priming Saving Money	11	2.50	2.45	.789	11.32	124.50
	Total	22	2.50	2.68	1.287		

Note: LTD refers to low trade-off difficulty

Table 14. Mann-Whitney Test Statistics of Perceived Trade-Off Difficulty for Low Trade-Off Difficulty Subgroups for Pretest II

	Perceived Trade-off Difficulty Subgroups
Mann-Whitney U	58.500
Wilcoxon W	124.500
Z	-.133
Asymp. Sig. (2-tailed)	.894
Exact Sig. [2*(1-tailed Sig.)]	.898 ^a

a. Not corrected for ties.

Additionally, after checking for reliability (Cronbach's alpha = 0.810, $M_{Membership} = 4.70$ and $M_{Example} = 4.64$), the two typicality-related items were averaged to form the typicality index. The manipulation check illustrated that the typicality manipulation produced a significant effect on participants' perceived choice typicality evaluations ($U = 102.000$, $p = .001$). In brief, compared to the low choice typicality condition ($M_{Low\ Typicality} = 4.11$), respondents in the high choice typicality condition perceived a higher level of subsequent choice typicality directed at the same goal-derived choice category as the initial choice ($M_{High\ Typicality} = 5.22$). The results are presented in Table 15 through Table 18.

Table 15. Reliability Statistics of the Perceived Subsequent Choice Typicality Scale

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.810	.812	2

Table 16. Item Statistics of the Perceived Subsequent Choice Typicality Scale

	Item Statistics			Inter-Item Correlation Matrix	
	Mean	Std. Deviation	N	Membership	Example
Membership	4.70	1.133	44	1.000	.683
Example	4.64	1.241	44	.683	1.000

Table 17. Descriptive Statistics of Perceived Subsequent Choice Typicality Groups

Groups		N	Median	Mean	Std. Deviation	Mean Rank	Sum of Ranks
Perceived Choice Typicality	Low	22	4.50	4.11	1.15	16.14	355.00
	High	22	5.00	5.22	.667	28.86	635.00
	Total	44	5.00	4.67	1.089		

Table 18. Mann-Whitney Test Statistics of Perceived Subsequent Choice Typicality Groups

	Perceived Choice Typicality
Mann-Whitney U	102.000
Wilcoxon W	355.000
Z	-3.348
Asymp. Sig. (2-tailed)	.001

Finally, a mean score of 5.93 for perceived realism ratings indicated that the respondents considered the scenarios to be highly realistic. In addition, a Mann-Whitney *U* test was conducted to evaluate if there were significant differences between high ($M_{LTD} = 6.05$) and low trade-off difficulty ($M_{HTD} = 5.82$) groups in terms of their perception of the realism of the scenarios. However, as displayed in Table 19 and Table 20, the results showed that the difference between the mean score of groups was not statistically significant.

Table 19. Descriptive Statistics of Perceived Realism for Pretest II

Groups		N	Mean	Std. Deviation	Median
Perceived Realism	Low Trade-off Difficulty	22	6.05	1.253	6.00
	High Trade-off Difficulty	22	5.82	1.006	6.00
	Total	44	5.93	1.129	6.00

Table 20. Mann-Whitney Test Statistics of Perceived Realism for Pretest II

	Perceived Realism
Mann-Whitney U	194.000
Wilcoxon W	447.000
Z	-1.247
Asymp. Sig. (2-tailed)	.212

To sum it up, consistent with our theorizing, participants evaluated the level of trade-off difficulty differently based on the importance of conflicting goals manipulations. Likewise, respondents assessed the level of subsequent choice typicality in a different way regarding whether subsequent choice was highly or lowly typical to the goal-derived category according to common product categories.

CHAPTER V

ANALYSIS AND RESULTS

The proposed hypotheses were tested through two studies by conducting logistic regression and linear regression analyses. Since the dependent variable is dichotomous in nature (consistent/inconsistent), the main proposition was tested by performing binary logistic regression. Other hypotheses which include a continuous dependent variable (stress) were tested by performing linear regression analyses.

After data was screened to check for set of errors, the fit between the data and some very basic assumptions of different techniques were discussed. Then, the significance of treatment group equivalence and group difference were reviewed by examining the data.

5.1 SAMPLES

First of all, descriptive statistics such as gender, age, income, and education of participants were obtained, and then chi-square analyses were conducted to check differences between the groups based on these demographics. After that, sample adequacy checks were performed firstly to test for the violation of the assumption of the chi-square test, and then to test for the association between the manipulated categorical independent variable(s) and the categorical dependent variable.

5.1.1 Demographic Characteristics of Samples

A total number of 128 subjects participated in the first study and 64 respondents randomly assigned to each of the two treatment groups. 40.6 percent of participants were female ($n_1=52$) and 59.4 percent were male ($n_1=76$). Among these participants, 8.6 percent ($n_1=11$) were aged 24 and lower, 42.2 percent ($n_1=54$) were aged between 25 and 34, 25.8 percent ($n_1=33$) were aged between 35 and 44, 18 percent ($n_1=23$) were aged between 45 and 54, and 5.5 percent ($n_1=7$) were aged 55 and higher. Regarding monthly income levels, 43 percent ($n_1= 55$) of respondents stated their income levels 1000TL and lower, 33.6 percent ($n_1= 43$) between 1001 and 2000TL, 15.6 percent ($n_1= 20$) between 2001 and 3000TL, and 7.8 percent ($n_1=10$) 3001 and higher. Finally, the distribution of education for the sample showed that 13.3 percent ($n_1=17$) had elementary school education, 7.8 percent ($n_1=10$) had high school level, 22.7 percent ($n_1=29$) had college level education, 48.4 percent ($n_1= 62$) had undergraduate degree, and 7.8 percent ($n_1= 10$) had graduate degree.

In the second study, in each of the four experimental groups there were 44 subjects. Among the total of 136 respondents, 47.8 percent ($n_2=65$) were female and 52.2 percent ($n_2=71$) were male. The age distribution of these participants were as follows; 16.5 percent ($n_2=22$) 24 and lower, 27.9 percent ($n_2=38$) between 25 and 34, 22.1 percent ($n_2=30$) between 35 and 44, 18.4 percent ($n_2=25$) between 45 and 54, 15.4 percent ($n_2=21$) 55 and higher. With regard to monthly income level, of these 136 participants, 38.2 percent ($n_2=52$) had income 1000TL and lower, 28.7 percent ($n_2=39$) between 1001 and 2000TL, 18.4 percent ($n_2=25$) between 2001 and 3000TL, and 14.7 percent ($n_2=20$) 3001 and higher. Finally, 17.6 percent ($n_2=24$) of

them had elementary school education, 14.7 percent ($n_2=20$) had high school education degree, 19.9 percent ($n_2=27$) were graduated from college, 33.1 percent ($n_2=45$) were graduated from university, and 14.7 percent ($n_2=20$) had masters or higher education degree. The demographic characteristics of the samples of the two experiments are summarized in Table 21. It should be noted that none of the samples comprised student respondents.

Table 21. Demographic Characteristics of the Samples

<i>Demographics</i>		<i>Study I</i>		<i>Study II</i>	
		$n_1=128$	%	$n_2=136$	%
Gender	Female	52	40.6	65	47.8
	Male	76	59.4	71	52.2
Age	24 and below	11	8.6	22	16.5
	25 to 34	54	42.2	38	27.9
	35 to 44	33	25.8	30	22.1
	45 to 54	23	18	25	18.4
	55 and above	7	5.5	21	15.4
Monthly Income	1000 and below	55	43	52	38.2
	1001 to 2000	43	33.6	39	28.7
	2001 to 3000	20	15.6	25	18.4
	3001 and above	10	7.8	20	14.7
Education	Elementary School	17	13.3	24	17.6
	High School	10	7.8	20	14.7
	College	29	22.7	27	19.9
	Undergraduate	62	48.4	45	33.1
	Graduate	10	7.8	20	14.7

5.1.2 Preliminary Analyses

5.1.2.1 Matching Sample Checks

When the subjects are simply divided into mutually exclusive classes, a nominal scale incorporates the relation of equivalence between the entities of the same class (Siegel, 1957). Similarly, when comparing the differences between these groups by using Pearson chi-square tests, special attention should be given to the number of cells, expected cell counts, the equivalence of all cell properties (Haberman, 1988). Random assignment of subjects to experimental groups is assumed to equalize the potential effect of confounding variables across experimental manipulated groups (Marczyk et al., 2005). To obtain equivalence of demographic characteristics of participants among groups is such a basic purpose of random assignment. Therefore, before conducting main analyses, the equivalence of experimental groups in terms of demographics were tested by using chi-square analyses.

The results indicated that the two trade-off difficulty groups in the first study were not significantly different in terms of gender $\chi^2 (1, n_1=128) = .291, p >.05$ (with Yates Continuity Correction), age $\chi^2 (4, n_1=128) = 3.849, p >.05$, income $\chi^2 (3, n_1=128) = 2.958, p >.05$ and education $\chi^2 (4, n_1=128) = 2.504, p >.05$.

Second main study was composed of four groups in which the levels of trade-off difficulty and subsequent choice typicality were manipulated. However, since some of the analyses were conducted by using these variables individually, matching sample checks were conducted both separately and collectively. The findings

portrayed that the four trade-off difficulty and typicality experimental groups were identical with regard to demographic characteristics of the participants. The relevant test statistics for gender was $\chi^2 = .796$ with 3 degrees of freedom and .851 p value, for age was $\chi^2 = 3.131$ with 12 degrees of freedom and .995 p value, for income was $\chi^2 = 5.744$ with 9 degrees of freedom and .765 p value, and for education was $\chi^2 = 3.607$ with 12 degrees of freedom and .990 p value.

In terms of typicality, a chi-square analysis revealed that there were no differences between the two experimental manipulated groups of the second study based on gender $\chi^2 (1, n_2=136) = .472, p >.05$ (with Yates Continuity Correction), age $\chi^2 (4, n_2=136) = .326, p >.05$, income $\chi^2 (3, n_2=136) = 2.462, p >.05$ and education $\chi^2 (4, n_2=136) = 1.293, p >.05$. Similarly, there were no significant differences between the two trade-off difficulty groups in terms of gender $\chi^2 (1, n_1=136) = .000, p >.05$ (with Yates Continuity Correction), age $\chi^2 (4, n_1=136) = 1.763, p >.05$, income $\chi^2 (3, n_1=136) = 1.641, p >.05$ and education $\chi^2 (4, n_1=136) = .226, p >.05$.

The summary of the findings of the matching sample checks for both of the samples of the two main studies are shown in Table 22. These results indicated that, the potential impact of demographic characteristics of participants, if there was any, was consistent across all of the experimental groups.

Table 22. Findings of the Matching Sample Checks

Pearson Chi-Square Tests Statistics			
Sample Checks for Study I	<i>Value</i>	<i>df</i>	<i>Asymp. Sig. (2-sided)</i>
Trade-off Groups * Gender	.291	1	.589
Trade-off Groups * Age	3.849	4	.427
Trade-off Groups * Income	2.958	3	.398
Trade-off Groups * Education	2.504	4	.644
Sample Checks for Study II	<i>Value</i>	<i>df</i>	<i>Asymp. Sig. (2-sided)</i>
Trade-off & Typicality Groups * Gender	.796	3	.851
Trade-off & Typicality Groups * Age	3.131	12	.995
Trade-off & Typicality Groups * Income	5.744	9	.765
Trade-off & Typicality Groups * Education	3.607	12	.990
Trade-off Groups * Gender	.000	1	1
Trade-off Groups * Age	1.763	4	.779
Trade-off Groups * Income	1.641	3	.650
Trade-off Groups * Education	.226	4	.994
Typicality Groups * Gender	.472	1	.492
Typicality Groups * Age	.326	4	.988
Typicality Groups * Income	2.462	3	.482
Typicality Groups * Education	1.293	4	.863

5.1.2.2 Sample Adequacy Checks

The minimum expected observation of 5 cases in each cell is frequently recommended in the application of chi-square statistics (David and Sutton, 2004; Haberman, 1988). Similarly, in logistic regression analysis, it should be ensured that samples are adequate for conducting chi-square test, which means at least 80 percent of cells formed by categorical independents should have expected frequencies of 5 or more. To assure that this requirement was met, cross-tabulation procedures were used to show the relationships between trade-off difficulty, subsequent choice typicality and sequential choice consistency categorical variables.

Chi-Square analysis for the sample of the first study indicated that all cell frequencies were larger than 1 and none of the cells had expected count less than 5, as shown in Table 23. In addition, 54 participants (84.8%) in the low trade-off difficulty condition ($n_1 = 64$) were consistent in their sequential choices while only 10 subjects (15.6 %) preferred inconsistency in the low trade-off difficulty situation. On the contrary, in high trade-off difficulty situation only 15.6 percent of participants were consistent in their sequential choices situation whereas 84.8 percent were inconsistent.

Table 23. Cross-tabulation of Sequential Choice Consistency by Trade-off Difficulty Groups for Sample I

			CONSISTENCY		Total
			Inconsistent	Consistent	
GROUPS	High Tradeoff Difficulty	Count	54	10	64
		% within Group	84.4%	15.6%	100.0%
	Low Tradeoff Difficulty	Count	10	54	64
		% within Group	15.6%	84.4%	100.0%
TOTAL		Count	64	64	128
		% within Group	50.0%	50.0%	100.0%

Thus, based on the two-by-two cross-tabulation table, it seems that participants in the low trade-off difficulty situation were more likely to be consistent in their sequential choices. In respect to this, the corrected value of Pearson Chi-Square value of 57.78 (1, $n_1 = 128$) with an associated significance level of .000, showed that there was an association between trade-off difficulty groups and sequential choice consistency. The results are shown in Table 24 below.

Table 24. Chi-square Test of Independence between Trade-off Difficulty Groups and Sequential Choice Consistency for Sample I

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	60.500 ^a	1	.000		
Continuity Correction	57.781	1	.000		
Likelihood Ratio	66.496	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	60.027	1	.000		
N of Valid Cases	128				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 32

Similarly, the sample of the second study did not violated the assumption of chi-square concerning the minimum expected cell frequency of 5 cases for the two treatment groups, as displayed in Table 26. The cell counts indicated there were 13 participants in high trade-off difficulty situation and 58 participants in low trade-off difficulty situation who made sequentially consistent choices. On the contrary, as illustrated in Table 27, almost equal number of participants were consistent in their sequential choices in both of the subsequent choice typicality groups ($n_{\text{High Typicality}} = 36$ and $n_{\text{Low Typicality}} = 35$). Additionally, all cell frequencies were larger than 1 and none of the cells had expected count less than 5 in sequential choice typicality groups concerning sequential choice consistency.

Table 25. Cross-tabulation of Sequential Choice Consistency by Trade-off Difficulty Groups for Sample II

		CONSISTENCY		Total
		Inconsistent	Consistent	
GROUPS	High Tradeoff Difficulty Count	55	13	68
	% within Groups	80.9%	19.1%	100.0%
	Low Tradeoff Difficulty Count	10	58	68
	% within Groups	14.7%	85.3%	100.0%
TOTAL	Count	65	71	136
	% within Groups	47.8%	52.2%	100.0%

As portrayed in Table 26 and 28, the preliminary test of chi-square showed that reliable observed frequencies or proportion of cases differences on dependent variable is associated with group membership for trade-off difficulty groups, $\chi^2(1, n_2 = 136) = 57.05, p = .00$, but not for subsequent choice typicality groups, $\chi^2(1, n_2 = 136) = .000, p = 1$.

Table 26. Chi-square Test of Independence between Trade-off Difficulty Groups and Sequential Choice Consistency for Sample II

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	59.675 ^a	1	.000		
Continuity Correction	57.052	1	.000		
Likelihood Ratio	65.124	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	59.236	1	.000		
N of Valid Cases	136				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 32.50.

Table 27. Cross-tabulation of Sequential Choice Consistency by Subsequent Choice Typicality Groups

		CONSISTENCY		Total	
		Inconsistent	Consistent		
GROUPS	High Typicality	Count	32	36	68
		% within Groups	47.1%	52.9%	100.0%
	Low Typicality	Count	33	35	68
		% within Groups	48.5%	51.5%	100.0%
Total		Count	65	71	136
		% within Groups	47.8%	52.2%	100.0%

Table 28. Chi-square Test of Independence between Subsequent Choice Typicality Groups and Sequential Choice Consistency

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.029 ^a	1	.864		
Continuity Correction	.000	1	1.000		
Likelihood Ratio	.029	1	.864		
Fisher's Exact Test				1.000	.500
Linear-by-Linear Association	.029	1	.864		
N of Valid Cases	136				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 32.50.

In the next step, the relationship between trade-off difficulty and sequential choice consistency was examined when subsequent choice typicality was taken into account. As shown in the three-way cross-tabulation in Table 29 below, the effect of low trade-off difficulty on sequential choice consistency was stronger in high subsequent choice typicality group than in the low one.

Table 29. Cross-tabulation of Sequential Choice Consistency by Trade-off Difficulty and Subsequent Choice Typicality Groups

GROUPS				CONSISTENCY		Total
				Inconsistent	Consistent	
High Tradeoff Difficulty	Typicality	High	Count	30	4	34
			% within Typ	88.2%	11.8%	100.0%
		Low	Count	25	9	34
			% within Typ	73.5%	26.5%	100.0%
	Total		Count	55	13	68
			% within Tpy	80.9%	19.1%	100.0%
Low Tradeoff Difficulty	Typicality	High	Count	2	32	34
			% within Tpy	5.9%	94.1%	100.0%
		Low	Count	8	26	34
			% within Tpy	23.5%	76.5%	100.0%
	Total		Count	10	58	68
			% within Tpy	14.7%	85.3%	100.0%

Note: Typ refers to typicality.

To be specific, 32 respondents were consistent across their sequential choices when they perceived the subsequent choices as highly typical, whereas the number was 26 in low sequential choice typicality situation. Among high trade-off difficulty choice situation 4 respondents in the high typicality choice group and 9 respondents in low typicality choice group were consistent in their sequential choices. However, chi-square tests indicated that the difference was statistically significant for low trade-off

difficulty, $\chi^2 (1, n_2 = 136) = 4.221, p = .040$, but not statistically significant for high trade-off difficulty, $\chi^2 (1, n_2 = 136) = 2.378, p = .123$. These results given in Table 30 provide evidence for the moderating effect of subsequent choice typicality on predicting sequential choice consistency from trade-off difficulty level.

Table 30. Chi-square Test of Independence between Trade-off Difficulty, Subsequent Choice Typicality and Sequential Choice Consistency

Groups		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
High Tradeoff Difficulty	Pearson Chi-Square	2.378 ^a		.123		
	Continuity Correction	1.522	1	.217		
	Likelihood Ratio	2.429	1	.119		
	Fisher's Exact Test				.217	.108
	Linear-by-Linear Association	2.343	1	.126		
	N of Valid Cases	68				
Low Tradeoff Difficulty	Pearson Chi-Square	4.221 ^c	1	.040		
	Continuity Correction	2.931	1	.087		
	Likelihood Ratio	4.477	1	.034		
	Fisher's Exact Test				.083	.042
	Linear-by-Linear Association	4.159	1	.041		
	N of Valid Cases	68				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.50.

c. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.00.

Since the effects of manipulated groups were found to be statistically different on the response variable, the degrees of relationships among these variables were further explored by several regression analyses in the following sections.

5.2 STUDY I

This study used a single factor (tradeoff difficulty level: high vs. low) between-subjects design. The trade-off difficulty was the experimental manipulation of exposure to either high or low level conditions, and thus treated as a grouping variable valued either 1 or 0, respectively. Regarding the dichotomous nature of the dependent variable, sequential choice consistency was coded as 1 and inconsistency was coded as 0. In terms of the independent variable, low trade-off difficulty condition was coded as 1 while high trade-off condition was 0, and thus the reference group was high trade-off difficulty. With regard to stress, high scores indicated higher level of stress experienced during making a choice.

5.2.1 Test for Sequential Effects on Choice Consistency

Hypothesis I proposed that consumers are more likely to be consistent in their sequential choices that involve low compared to high trade-off difficulty between two active goals. Therefore, a binary logistic regression analysis was performed to assess the impact of the level of trade-off conflict difficulty on sequential choice consistency.

The Omnibus test of Model Coefficients test, also called the ‘goodness of fit’ test, was used to test for the overall fit of a logistic regression model. Ideally, a finding of significance indicates that at least one of the predictors is significantly related to dependent variable so that the model adequately fits the data. The results of omnibus test, $\chi^2(1, N_I = 128) = 66.496, p < .001$, shown in Table 31 revealed that the model

was able to distinguish between respondents who were consistent in their sequential choices and who were not. This result was the same with the Likelihood Ratio Chi-Square given by the trade-off difficulty group and sequential choice consistency cross-tabulation output in Table 24.

Table 31. Omnibus Tests of Model Coefficients for Trade-Off Difficulty in Study I

		Chi-square	df	Sig.
Step 1	Step	66.496	1	.000
	Block	66.496	1	.000
	Model	66.496	1	.000

The Cox & Snell and Nagelkerke R Square values, also described as pseudo R square measures, provide an indication of the amount of variance in the dependent variable explained by the model. The current model, as depicted in Table 32, explained between 40.5 percent (Cox and Snell R Square) and 54 percent (Nagelkerke R Square) of the variances in sequential choice consistency. As shown in Table 33, the model's ability to predict the correct category was improved from 50 to 84.4 percent when the predictor was included in the model. In other words, the model correctly classified 84.4 percent of the cases. Moreover, the positive predicted value is 84.3 percent (positive predicted value is the number of cases in the predicted=consistent and observed=consistent cell (54) divided by the total number of the in the predicted=consistent cells (64) multiplied by 100), indicating that the model predicted sequential choice consistency with an 84.3 percent confidence. Similarly, the model also predicted inconsistency with an 84.3 percent confidence (negative predicted value).

Table 32. R Square Statistics for Trade-Off Difficulty in Study I

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	110.950 ^a	.405	.540

a. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.

Table 33. Correctly Classified Cases for Sequential Choice Consistency in Study I

OBSERVED			PREDICTED		
			Consistency		Percentage Correct
			Inconsistent	Consistent	
Step 1	Consistency	Inconsistent	54	10	84.4
		Consistent	10	54	84.4
Overall Percentage					84.4

a. The cut value is .500

As illustrated in Table 34, the predicted main effect of trade-off difficulty level was obtained ($B = 3.373$, $S.E. = .487$, $Wald = 47.99$, $p < .001$). This result indicated that respondents were more likely to be consistent in their sequential choices when the sequential choices involve a low level of trade-off difficulty between two competing goals. The $Exp(B)$ column showed that respondent facing sequential choices that involve low trade-off difficulty were 29.16 times more likely to be consistent than when the trade-off difficulty was high.

Table 34. Logistic Regression Predicting Likelihood of Sequential Choice Consistency from Trade-off Difficulty in Study I

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Step 1 ^a Group(1)	3.373	.487	47.992	1	.000	29.160	11.230	75.719
Constant	-1.686	.344	23.996	1	.000	.185		

a. Variable(s) entered on step 1: Group.

Based on the statistics in Table 34, the logistic regression equation was estimated as:

$$\text{Logit (Consistency)} = -1.686 + 3.373(\text{Tradeoff-Difficulty}_{\text{Low}})$$

For example, when a respondent makes two sequential choices that involve the same trade-off which has a low level of difficulty (low trade-off difficulty = 1, high trade-off difficulty = 0), the equation $\text{logit (consistency)} = -1,686 + 3,373(1) = 1,687$ is obtained. This corresponds to a probability of being consistent across sequential choices of $e^{1,687} / (1 + e^{1,687}) = .84$, where $e = 2.7182$ is the base of the system of natural algorithms. Alternatively, when a respondent makes two sequential choices that involve the same trade-off which has a high level of difficulty, the equation becomes $\text{logit (consistency)} = -1,686 + 3,373(0) = -1,686$. This corresponds to a probability of consistency of $e^{-1,686} / (1 + e^{-1,686}) = .16$. Since the probability of being consistent in sequential choices was higher in low trade-off difficulty condition compared to the high one, the first hypothesis was confirmed.

5.2.1.1 Control Test for the Effects of Demographics

Another binary logistic regression was conducted to measure the impact of demographic characteristics on the likelihood of respondents' consistency in their sequential choices. The model contained four demographic independent variables (gender, age, education and income). The test results indicated that the full model containing all predictors was statistically insignificant, $\chi^2(12, N_I = 128) = 6.653, p = .880$, representing that the model was unable to distinguish between respondent who were consistent in their sequential choices and who were not. The related results are

displayed in Table 35. Correspondingly, as shown in Table 36, none of the demographic characteristics of respondents made unique statistically significant contribution to the model.

Table 35. Omnibus Tests of Model Coefficients for Demographics in Study I

	Chi-square	df	Sig.
Step 1 Step	6.653	12	.880
Block	6.653	12	.880
Model	6.653	12	.880

Table 36. Logistic Regression Predicting Likelihood of Sequential Choice Consistency from Demographics in Study I

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Step 1 ^a Gender(1)	.142	.384	.136	1	.712	1.152	.543	2.447
Age			2.337	4	.674			
Age(1)	-.329	1.103	.089	1	.766	.720	.083	6.249
Age(2)	-.955	.916	1.086	1	.297	.385	.064	2.319
Age(3)	-.644	.948	.461	1	.497	.525	.082	3.370
Age(4)	-1.104	.986	1.254	1	.263	.331	.048	2.290
Education			2.102	4	.717			
Education(1)	-1.045	.955	1.198	1	.274	.352	.054	2.285
Education(2)	-1.088	1.057	1.059	1	.303	.337	.042	2.674
Education(3)	-.410	.847	.234	1	.629	.664	.126	3.492
Education(4)	-.759	.802	.895	1	.344	.468	.097	2.255
Income			.264	3	.967			
Income(1)	.077	.745	.011	1	.917	1.080	.251	4.653
Income(2)	-.151	.753	.040	1	.841	.860	.197	3.761
Income(3)	.077	.833	.009	1	.926	1.080	.211	5.529
Constant	1.434	1.213	1.397	1	.237	4.194		

a. Variable(s) entered on step 1: Gender. Age. Education. Income.

5.2.1.2 Control Test for the Effect of Goal Priming

As mentioned before, in the low trade-off difficulty choice situation, one of the competing goals, either health-related or pleasure-related, was primed. Half of the participants in the low trade-off difficulty condition read the scenario in which health-related goal was primed, and the others read the same scenario but this time pleasure-related goal was primed. It was predicted that the difference in priming manipulation would not make a difference on the effect of low level of trade-off difficulty on sequential choice consistency.

To test whether participants in the two subgroups of low trade-off difficulty group differed in their sequential choice consistency, first a Pearson chi-square analysis was performed. As depicted in Table 37, the cross-tabulation results indicated that 87.5 percent of the respondents were consistent in their sequential choices when the health-related goal was primed, and similarly 84.4 percent of the participants were consistent when the pleasure-related goal was primed. A Pearson chi-square test revealed that there was no significant difference in the sequential choice consistency of the two low trade-off difficulty goal priming subgroups as shown in Table 38.

Table 37. Cross-tabulation of Sequential Choice Consistency by Low Trade-off Difficulty Goal Priming Groups for Sample I

		CONSISTENCY		Total
		Inconsistent	Consistent	
LTD GOAL PRIMING GROUPS	Low Tradeoff Difficulty Count By Priming Health	4	28	32
	% within LTD Goal Priming Groups	12.5%	87.5%	100.0%
	Low Tradeoff Difficulty Count By Priming Pleasure	5	27	32
	% within LTD Goal Priming Groups	15.6%	84.4%	100.0%
TOTAL	Count	9	55	64
	% within LTD Goal Priming Groups	14.1%	85.9%	100.0%

Note: LTD refers to low trade-off difficulty

Table 38. Chi-square Test of Independence between Low Trade-off Difficulty Goal Priming Groups for Study I

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.129 ^a	1	.719		
Continuity Correction	.000	1	1.000		
Likelihood Ratio	.130	1	.719		
Fisher's Exact Test				1.000	.500
Linear-by-Linear Association	.127	1	.721		
N of Valid Cases	64				

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 4.50.

However, the effect of the goal priming manipulation was further analyzed by a logistic regression analysis. In the line with the chi-square test, the results showed that priming different goals within the low trade-off difficulty groups made no significant contribution to the likelihood of predicting consistency in the sequential choices of participants, $\chi^2(1, N_I = 64) = .130, p = .719$. The omnibus test of model

coefficient was insignificant; the influence of goal priming did not significantly improve the prediction of whether or not a respondent was consistent in his/her sequential choices. The R square showed that the amount of variance explained by the model was only between 2 percent and 4 percent. Besides, the beta coefficient for low trade-off difficulty goal priming groups was not significant ($\beta = .26, p = .72$). All the logistic regression outputs are presented in the Table 39 through Table 41.

Table 39. Omnibus Tests of Model Coefficients for Low Trade-off Difficulty Goal Priming in Study I

	Chi-square	df	Sig.
Step 1 Step	.130	1	.719
Block	.130	1	.719
Model	.130	1	.719

Table 40. R Square Statistics for Low Trade-off Difficulty Goal Priming in Study I

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	51.851 ^a	.002	.004

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

Table 41. Logistic Regression Predicting Likelihood of Sequential Choice Consistency from Low Trade-off Difficulty Goal Priming in Study I

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Step 1 ^a LTD Goal Priming Groups (1)	.260	.723	.129	1	.720	1.296	.314	5.347
Constant	1.686	.487	11.998	1	.001	5.400		

a. Variable(s) entered on step 1: LTD Goal Priming Groups

5.2.2 Test for the Moderating Effect of the Gender of the Participants

Although the predicted effect of the gender of the participants on the sequential choice consistency was found to be insignificant in the previous section, given the male gender of the hypothetical consumer in the scenarios, Hypothesis II proposing the interaction effect of gender with trade-off difficulty on sequential choice consistency of customers was also tested. A forward likelihood ratio stepwise logistic regression analysis was employed to assess the impact of trade-off difficulty, gender and the interaction of these two predicting variables on the sequential choice consistency. Employing stepwise technique is strongly advised in deciding a set of predictors for inclusion or removal from a logistic regression model (Menard, 1995). The results demonstrated that beside trade-off difficulty level, neither gender nor gender interacted with trade-off difficulty were significant in predicting consistency in sequential choices. Since the effect of trade-off difficulty on sequential choice difficulty was presented in the previous tables, only the insignificant effects of gender and gender interacted with trade-off difficulty were shown in Table 42 below. Consequently, the second hypothesis was not supported.

Table 42. Variables not Included in the Logistic Regression Predicting Likelihood of Sequential Choice Consistency from Gender of the Respondents in Study I

	Score	df	Sig.
Step 1 Variables Gender(1)	.035	1	.852
Gender(1) by Group(1)	1.272	1	.259
Overall Statistics	2.062	2	.357

5.2.3 Stress Ratings of Initial Decision

Hypothesis III proposed that consumers are likely to feel more stress in making a choice that involves high level of trade-off difficulty between two active goals compared to in making a choice that involves low level of trade-off difficulty. Given the continuous nature of stress variable, a linear regression was used to test the significance of the relationships between the level of trade-off difficulty and stress experienced. After preliminary analyses ensured no violation of the assumptions of normality, outliers, and linearity, the rest of the results of the linear regression analysis were interpreted. The results indicated that the model explained 29.2% of the variances in stress experienced in making a choice, as presented in Table 43. An ANOVA test, revealed in Table 44, also showed that this result was statistically significance, $F(1, 128) = 51.877, p < .001$.

Table 43 . R Square Statistics for Trade-off Difficulty and Stress in Study I

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.540 ^a	.292	.286	1.178

a. Predictors: (Constant). Group

b. Dependent Variable: Stress

Table 44. ANOVA Statistics for Trade-off Difficulty and Stress in Study I

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	72.000	1	72.000	51.877	.000 ^a
	Residual	174.875	126	1.388		
	Total	246.875	127			

a. Predictors: (Constant). Group

Finally, Table 45 showed that the predicted effect of the level of the trade-off difficulty on stress experienced was obtained ($B = -1.5$, $t = -7.203$, $p < .001$). This result supported that respondents in high trade-off difficulty choice situation reported that they have felt more stress in making their choices than participants in low trade-off difficulty choice situation.

Table 45. Regression Coefficients and Confidence Intervals of Trade-off Difficulty for Study I

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	4.656	.147		31.619	.000	4.365	4.948
Group	-1.500	.208	-.540	-7.203	.000	-1.912	-1.088

a. Dependent Variable: Stress

Based on the values from the table above, the linear regression equation was formulated as:

$$\text{Stress} = 4.656 - 1.5 (\text{Tradeoff-Difficulty}_{\text{Low}})$$

Since the model contained only one independent variable which is categorical, the interpretation of the regression equation would be different. Since trade-off difficulty level was coded as 0 or 1, a one unit difference represented switching from one category to the other. The coefficient of trade-off difficulty variable was then the average difference in stress between the category for which trade-off difficulty = 0 (the reference group) and the category for which trade-off difficulty = 1 (the comparison group). For example, when the sequential choices are perceived to involve low level of trade-off difficulty (low-tradeoff-difficulty = 1, high-tradeoff-

difficulty = 0), the equation would become to $4.656 - 1.5(1) = 3.156$. On the other hand, when the trade-off difficulty is high, the equation would simplify to $4.656 - 1.5(0) = 4.656$. Thus, compared to sequential choices that involve high trade-off difficulty, we would expect a subject to report feeling 1.5 less level of stress for sequential choices that involve low trade-off difficulty, on average. The values of stress estimated by the regression equation were equal to the mean value of stress scores of the trade-off difficulty groups. To sum it up, the results supported the third hypothesis.

5.2.4 The Effect of Stress on Sequential Choice Consistency

Hypothesis IV proposed that consumers are less likely to be consistent in their sequential choices when they feel more stress during making the initial choice. A binary logistic regression was performed to test this hypothesis. The result of omnibus test, shown in Table 46, revealed that the model containing stress predictor was statistically significant, $\chi^2(1, N_I = 128) = 68.299, p < .001$. In other words, the logistic regression model was the correct model in testing the capability of stress experienced during making an initial choice in predicting the sequential choice consistency.

Table 46. Omnibus Tests of Model Coefficients for Stress in Study I

	Chi-square	df	Sig.
Step 1 Step	68.299	1	.000
Block	68.299	1	.000
Model	68.299	1	.000

As shown in Table 47, the model explained between 41.3 percent (Cox and Snell R Square) and 55.1 percent (Nagelkerke R Square) of the variation in sequential choice consistency. In addition, Table 48 indicated that the model correctly classified 79.7 percent of the cases showing an improvement over the 50 percent reached in the constant-only model.

Table 47. R Square Statistics for Stress in Study I

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	109.147 ^a	.413	.551

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

Table 48. Correctly Classified Cases for Stress in Study I

OBSERVED			PREDICTED		
			Consistency		Percentage Correct
			inconsistent	consistent	
Step 1	Consistency	inconsistent	59	5	92.2
		consistent	21	43	67.2
	Overall Percentage				79.7

a. The cut value is .500

The results, as presented in Table 49, revealed that stress made a statistically significant contribution in predicting consistency in sequential choices ($B = -1.662$, $Wald = 31.52$, $p < .001$). The odd ratios for stress was less than 1, therefore it can be inverted to aid interpretation by 1 divided by .19 equaling 5.26. The value suggested that as for each level of less stress experienced, the odds of being consistent in sequential choices increases by a factor of 5.26.

Table 49. Logistic Regression Predicting Likelihood of Sequential Choice Consistency from Stress for Study I

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Step 1 ^a Stress	-1.662	.296	31.518	1	.000	.190	.106	.339
Constant	6.521	1.189	30.063	1	.000	679.090		

a. Variable(s) entered on step 1: Stress.

The table above indicated that the estimated regression equation was:

$$\text{Logit (Consistency)} = 6.521 - 1.662(\text{Stress})$$

For example, when stress is at its maximum observed value, 7, this becomes logit (consistency) = $6.521 - 1.662(7) = -4.833$. Translating the logits into probabilities, the probability of being consistent for individuals whose score on the stress scale is 7, it becomes $e^{-4.833} / (1 + e^{-4.833}) = .89$. On the contrary, for individuals who reported feeling the lowest levels of stress, 1, the relative possibility of being consistent becomes $e^{4.859} / (1 + e^{4.859}) = .99$. The difference of the likelihood of consistency based on the level of stress portrayed in examples of two different levels indicates that the fourth hypothesis received support.

5.2.5 Test for the Mediating Effect of Stress

Hypothesis V stated that the relationship between trade-off difficulty and sequential choice consistency is partially mediated by stress. A series of regression analyses were performed to test for the mediating effect of stress felt in making an initial choice (Baron and Kenny, 1986). The following three regression equations were considered in testing the linkages of the mediational model: regressing the mediator

on the independent variable in the first equation; regressing the dependent variable on the independent variable in the second equation; and, regressing the dependent variable both on the independent variable and on the mediator variable in the third equation.

The results of previously conducted regression analyses indicated that trade-off conflict difficulty (i.e., high vs. low) predicted how likely participants were to be consistent ($B = -3.373$, $Wald = 47.992$, $p < .05$), trade-off conflict difficulty predicted reported stress ($B = -1.500$, $t = 7.203$, $p < .001$), and stress predicted the likelihood of respondent that would be consistent ($B = -1.662$, $Wald = 31.518$, $p < .05$). Since these findings provided evidence for the first two conditions of the linkages of the meditational model, the third regression equation including both of the predictors, trade-off difficulty and stress, was tested as a next step.

Firstly, the mediating variable was included as another independent variable in the first regression equation, and then the effect of independent variable on the dependent variable after controlling for the effect of the mediator was examined. The results are revealed in Table 50 through Table 52.

Table 50. Omnibus Tests of Model Coefficients for Trade-off Difficulty and Stress in Study I

	Chi-square	df	Sig.
Step 1 Step	26.633	1	.000
Block	26.633	1	.000
Model	94.932	2	.000

Table 51. R Square Statistics Trade-off Difficulty and Stress in Study I

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	82.514 ^a	.524	.698

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

Table 52. Logistic Regression Predicting Likelihood of Sequential Choice Consistency from Trade-Off Difficulty and Stress for Study I

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Step 1 ^a Stress	-1.386	.323	18.363	1	.000	.250	.133	.472
Group(1)	2.699	.566	22.761	1	.000	14.865	4.905	45.053
Constant	4.093	1.309	9.780	1	.002	59.903		

a. Variable(s) entered on step 1: Group.

The final logistic regression equation was formulated as:

$$\text{Logit (Consistency)} = 4,093 + 2.699(\text{Tradeoff-Difficulty}_{\text{Low}}) - 1,386(\text{Stress})$$

Baron and Kenny (1986) proposed to compare the absolute value of the coefficient relating the independent variable to the dependent variable in the regression equation derived from the second equation (symbolized as τ) and the relevant coefficient in the regression equation obtained from the third equation to measure the indirect, mediated effect of the independent variable on the dependent variable (symbolized as τ'). Another method suggested for measuring the mediation was to multiple the coefficients relating the mediator variable to the dependent variable in the third regression equation (symbolized as β) and the coefficient relating the independent variable to the mediator variable in the first regression equation (symbolized as α)

(MacKinnon and Dwyer, 1993). The value of the mediated effect calculated by the method of $\tau - \tau'$ is equal to the value determined by the method of $\alpha\beta$ when the dependent variable is continuous. However, when the dependent variable is categorical and the mediator is continuous, the regression coefficients are recommended to standardize to make the scales equivalent across different regression equations prior to estimating mediation (MacKinnon and Dwyer, 1993). Following the recommendations, first the variances of the outcome were calculated by using the parameter estimates and variances in the second regression equation and in the third equation separately. Then, rescaled parameters estimates were calculated by multiplying each logistic regression estimates by the standard deviations of the predictor variable in the equation and then dividing by the standard deviations of the outcome variable. The standardized coefficients of all of the three regression models and their standard errors are presented in Table 53.

Table 53. Regression Equations of Partial Mediating Effect of Stress

	Regression Equation 1		Regression Equation 2		Regression Equation 3	
	α	SE	B	SE	β	SE
Independent variable (Trade-off Difficulty)			0.682	0.09	0.440	0.09
Mediating Variable (Stress)	-0.383	0.05			-0.627	0.15

Note: $N = 128$

α, β = Standardized coefficients

$p < .05$

When both trade-off conflict difficulty and stress entered simultaneously into the logistic regression model, both continued to be significant predictors but the regression coefficient for trade-off difficulty ($\beta = .440$) was less in the third equation

than in the second ($\beta = .682$). The $\tau - \tau'$ estimation of mediation (.242) and $\alpha\beta$ estimation (.240) differed only slightly. Since the effect of the independent variable was reduced in absolute size when the mediator was added in the model, a partial mediating effect of stress was found. Moreover, a Sobel test was conducted to test for the significance of the indirect effect of the trade-off difficulty on the sequential choice consistency via stress experienced. The Sobel test results indicating that stress significantly partially mediated the impact of trade-off difficulty on choice consistency ($Z = 3.6, SE = .56, p < .001$) also supported the fifth hypothesis.

5.3 STUDY II

The purpose of the second study was twofold: (1) generalize the results of the first study and (2) examine whether the likelihood of sequential choice consistency may be attenuated with the low level of typicality of the subsequent choice. This study adopted a two (trade-off difficulty level: high vs. low) by two (typicality level: high vs. low) between-subjects design. As one of the main goals of the second study is to generalize the main effect to goals other than health and pleasure, saving money and pleasure goals were used to reflect a trade-off between two conflicting goals. Similar coding principles for dependent and independent variables were used in this experiment as in the previous study.

5.3.1 Generalize Sequential Effects to Goals Other than Pleasure

The aim of the first part of the second study was to replicate the findings of the first study with sequences of experiences where trading goals were thrift and pleasure. In

this regard, the effect of trade-off difficulty level on the likelihood of being consistent in sequential choices was examined first. Then, the relation between the levels of the trade-off difficulty and stress experienced was studied. Later, the effect of stress on the probability of consistency across sequential choices was observed. Finally, the expected mediating effect of stress on the relationship between the trade-off difficulty and sequential choice consistency was analyzed.

5.3.1.1 Test for Sequential Effects on Choice Consistency

Firstly, Hypothesis I was tested. The results of the Omnibus Tests of Model Coefficients indicated that the data adequately fit the model and the predictor, trade-off difficulty was significantly related to the outcome variable, sequential choice consistency ($\chi^2 [1, N_2 = 136] = 65.124, p < .001$). The Nagelkerke R Squared and Cox and Snell R Square showed that between 38.1 and 50.8 percent of the variation in the response variable was explained by the model. The overall accuracy of the model to predict respondents being consistent across their sequential choices was 83.1%. The value of Exp (B) suggests that the odds of choice consistency compared to inconsistency was increased by a factor of 24.54 if the subjects were exposed a low level of trade-off difficulty than a high one. The findings of the logistic regression analysis supported that trade-off difficulty level predicted the likelihood of being consistent across sequential choices ($B = 3.200, S.E. = .461, Wald = 48.230, p < .05$). All statistics of logistic regression analysis conducted for testing the first hypothesis are presented in Table 54 through 57.

Table 54. Omnibus Tests of Model Coefficients for Trade-Off Difficulty Study II

		Chi-square	df	Sig.
Step 1	Step	65.124	1	.000
	Block	65.124	1	.000
	Model	65.124	1	.000

Table 55. R Square Statistics Trade-off Difficulty in Study II

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	123.148 ^a	.381	.508

a. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.

Table 56. Correctly Classified Cases for Sequential Choice Consistency in Study II

Observed		Predicted			
		Consistency		Percentage Correct	
		inconsistent	consistent		
Step 1	Consistency	inconsistent	55	10	84.6
		consistent	13	58	81.7
	Overall Percentage				83.1

a. The cut value is .500

Table 57. Logistic Regression Predicting Likelihood of Sequential Choice Consistency from Trade-Off Difficulty for Study II

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)		
							Lower	Upper	
Step 1 ^a	Group(1)	3.200	.461	48.230	1	.000	24.538	9.945	60.547
	Constant	-1.442	.308	21.876	1	.000	.236		

a. Variable(s) entered on step 1: Group.

Then, a control test for the effects of demographic characteristics on the likelihood of sequential choice consistency was conducted by another binary logistic regression

analysis. As shown in Table 58, the full model containing all the four demographic independent variables (gender, age, education and income) was statistically significant, $\chi^2(12, N_2 = 136) = 8.271, p > .001$. Correspondingly, the results presented in Table 59 indicated that all the demographics predicting variables did not make statistically significant contribution to the model.

Table 58. Omnibus Tests of Model Coefficients for Demographics in Study II

	Chi-square	df	Sig.
Step 1 Step	8.271	12	.764
Block	8.271	12	.764
Model	8.271	12	.764

Table 59. Logistic Regression Predicting Likelihood of Sequential Choice Consistency from Demographic Characteristics for Study II

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Step 1 ^a Gender(1)	-.254	.369	.472	1	.492	.776	.376	1.600
Age			4.887	4	.299			
Age(1)	.487	.649	.564	1	.453	1.628	.456	5.809
Age(2)	.208	.599	.121	1	.728	1.231	.381	3.979
Age(3)	1.037	.625	2.752	1	.097	2.822	.828	9.614
Age(4)	-.115	.646	.032	1	.858	.891	.251	3.160
Education			1.274	4	.866			
Education(1)	-.270	.695	.150	1	.698	.764	.196	2.981
Education(2)	-.497	.681	.533	1	.466	.608	.160	2.312
Education(3)	.024	.637	.001	1	.970	1.025	.294	3.573
Education(4)	-.439	.603	.530	1	.467	.645	.198	2.102
Income			.685	3	.877			
Income(1)	-.166	.583	.081	1	.776	.847	.270	2.658
Income(2)	.238	.601	.157	1	.692	1.269	.391	4.124
Income(3)	.001	.633	.000	1	.999	1.001	.290	3.460
Constant	.133	.661	.041	1	.840	1.143		

a. Variable(s) entered on step 1: Gender. Age. Education. Income.

Finally, the relationship between priming different goals within the low trade-off difficulty groups and the sequential choice consistency was examined by a chi-square analysis. The two-way cross-tabulation summary of the data displayed in Table 60 showed that 26 respondents in thrift-related and 31 participants in pleasure-related goal primed condition were consistent across their sequential choices.

Table 60. Cross-tabulation of Sequential Choice Consistency by Low Trade-off Difficulty Goal Priming Groups for Sample II

		CONSISTENCY		Total
		Inconsistent	Consistent	
LTD GOAL PRIMING GROUPS	Low Tradeoff Difficulty Count By Priming Thrift	8	26	34
	% within LTD Goal Priming Groups	23.5%	76.5%	100.0%
	Low Tradeoff Difficulty Count By Priming Pleasure	3	31	32
	% within LTD Goal Priming Groups	8.8%	91.2%	100.0%
Total	Count	11	57	68
	% within LTD Goal Priming Groups	16.2%	83.8%	84.4%

Note: LTD refers to low trade-off difficulty

The test results also indicated that the difference between the numbers of subjects being consistent among the two groups was not statistically significant, $\chi^2(1, N_2 = 68) = 1.735, p = .188$, as shown in Table 61.

Table 61. Chi-square Test of Independence between Low Trade-off Difficulty Goal Priming Groups and Sequential Choice Consistency for Study II

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.711 ^a	1	.100		
Continuity Correction	1.735	1	.188		
Likelihood Ratio	2.797	1	.094		
Fisher's Exact Test				.186	.093
Linear-by-Linear Association	2.671	1	.102		
N of Valid Cases	68				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.50.

Consistent with the chi-square test, a logistic regression analysis demonstrated that creating low trade-off difficulty groups by priming different goals did not make a participant more or less likely to be consistent in his/her sequential choices, $\chi^2(1, N_2 = 68) = 2,797, p = .094$, as shown by the omnibus test in Table 62 and the difference between the Cox & Snell and Nagelkerke R Square statistics in Table 63, and the statistically insignificant beta coefficient ($\beta = -1.157, p = .112$) in Table 64.

Table 62. Omnibus Tests of Model Coefficients for Low Trade-off Difficulty Goal Priming in Study II

	Chi-square	df	Sig.
Step 1 Step	2.797	1	.094
Block	2.797	1	.094
Model	2.797	1	.094

Table 63. R Square Statistics for Low Trade-off Difficulty Goal Priming in Study II

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	7.394 ^a	.040	.069

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

Table 64. Logistic Regression Predicting Likelihood of Sequential Choice Consistency from Low Trade-off Difficulty Goal Priming for Study II

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
Step 1 ^a HTD Goal Priming Groups (1)	-1.157	.727	2.529	1	.112	.315	.076	1.308
Constant	2.335	.605	14.918	1	.000	10.333		

a. Variable(s) entered on step 1: HTD Goal Priming Groups

To sum it up, the first hypothesis was supported, while control hypothesis regarding the influence of the participants' demographic characteristics and the goal priming manipulations in low trade-off difficulty condition did not receive support.

5.3.1.2 Test for the Moderating Effect of the Gender of the Participants

Hypothesis II expecting a moderating effect of gender of participants on the relationship between trade-off difficulty level and sequential choice consistency was tested by employing a forward stepwise (likelihood ratio) logistic regression analysis. The addition of the trade-off difficulty reduced the deviance significantly by 65.124 and thus, was the only independent variable included in the model. The results indicated that neither gender nor gender interacted with trade-off difficulty made significant contribution in predicting sequential choice consistency. The effect of trade-off difficulty on sequential choice difficulty was shown in the previous tables, because of this only the insignificant effects of gender and gender interacted with trade-off difficulty were depicted in Table 65 below. Consequently, second hypothesis was not supported.

Table 65. Variables not included in the Logistic Regression Predicting Likelihood of Sequential Choice Consistency for Study II

			Score	df	Sig.
Step 1	Variables	Gender(1)	.337	1	.562
		Gender(1) by Group(1)	.010	1	.920
	Overall Statistics		.487	2	.784

5.3.1.3 Stress Ratings of Initial Decision

In testing Hypothesis III, assumptions of the linear regression were analyzed before proceeding with the interpretation of the results, and no violations were found. Based on the linear regression analysis results, the coefficient of determination is 0.261; therefore, about 26 percent of the variations in the perceived stress data is explained by trade-off difficulty level, as presented in Table 66. An ANOVA test, revealed in Table 67, also showed that this result was statistically significance, $F(1, 136) = 47.418, p < .001$. Finally, Table 68 showed that the expected impact of trade-off conflict difficulty level on stress experienced was obtained ($B = -1.412, t = -6.886, p < .001$). This result illustrated that respondents in low trade-off difficulty treatment reported that they have felt 1.412 less stress, on average, in making their choices compared to participants in low trade-off difficulty treatment because low trade-off difficulty was coded to be 1 and high 0.

Table 66. R Square Statistics for Trade-off Difficulty and Stress in Study II

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.511 ^a	.261	.256	1.195

a. Predictors: (Constant). Group

b. Dependent Variable: Stress

Table 67. ANOVA Statistics for Trade-off Difficulty and Stress in Study II

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	67.765	1	67.765	47.418	.000 ^a
	Residual	191.500	134	1.429		
	Total	259.265	135			

a. Predictors: (Constant). Group

b. Dependent Variable: Stress

Table 68. Regression Coefficients and Confidence Intervals of Trade-off Difficulty for Study II

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	4.632	.145		31.954	.000	4.346	4.919
	Group	-1.412	.205	-.511	-6.886	.000	-1.817	-1.006

a. Dependent Variable: Stress

The findings showed that participants rated feeling more stress when they made a choice that involved a high level of trade-off difficulty compared to a low level. As a result, the third hypothesis was supported.

5.3.1.4 The Effect of Stress on Sequential Choice Consistency

To test Hypothesis III concerning the effect of stress on the sequential choice consistency, another binary logistic regression was conducted. A test of model against a constant only model was statistically significant, $\chi^2(1, N_I = 136) = 55.606$, $p < .001$, and explained between 33.6 (Cox and Snell R Square) and 44.8 percent (Nagelkerke R Square) of the variances in sequential choice consistency. Therefore, the relevant hypothesis was supported as in the first study ($B = -1.253$, S.E. = .22,

Wald = 32.555, $p < .05$). In other words, the higher the stress score, the less likely it was that a subject would be consistent in his/her sequential choices. Tables 69 through 72 demonstrated the results of the binary logistic regression analysis for the relation between stress and sequential choice consistency.

Table 69. Omnibus Tests of Model Coefficients for Stress in Study II

	Chi-square	Df	Sig.
Step 1 Step	55.606	1	.000
Block	55.606	1	.000
Model	55.606	1	.000

Table 70. R Square Statistics for Stress in Study II

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	132.665 ^a	.336	.448

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

Table 71. Correctly Classified Cases for Stress in Study II

OBSERVED		PREDICTED			
		Consistency		Percentage Correct	
		Inconsistent	Consistent		
Step 1	Consistency	Inconsistent	40	25	61.5
		Consistent	9	62	87.3
	Overall Percentage				75.0

a. The cut value is .500

Table 72. Logistic Regression Predicting Likelihood of Sequential Choice Consistency from Stress for Study II

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Step 1 ^a Stress	-1.253	.220	32.555	1	.000	.286	.186	.439
Constant	5.077	.909	31.206	1	.000	160.243		

a. Variable(s) entered on step 1: Stress.

5.3.1.5 Test for the Mediating Effect of Stress

Since the previous regression analyses showed that that trade-off difficulty level predicted the level of stress experienced, and the stress predicted the sequential choice consistency, there was evidence for the mediating effect of stress as proposed in Hypothesis V. To assess the mediation, a third regression model was constituted by including the mediating variable as another independent variable in the first regression equation (Baron and Kenny, 1988). The omnibus tests of the new model gave a chi-square significance of 85.984 on 2 *df*, significant beyond .001, as shown in Table 73. The test also revealed that adding trade-off difficulty level to the model, where stress was the only predictor, its ability to predict the consistency of sequential choices made by respondents was increased. The pseudo R square statistics indicated that the model, as depicted in Table 74, explained between 46.9 (Cox and Snell R Square) and 62.5 (Nagelkerke R Square) percent of the variances in sequential choice consistency.

Table 73. Omnibus Tests of Model Coefficients for Trade-off Difficulty and Stress in Study II

	Chi-square	df	Sig.
Step 1 Step	30.378	1	.000
Block	30.378	1	.000
Model	85.984	2	.000

Table 74. R Square Statistics for Trade-off Difficulty and Stress in Study II

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	102.287 ^a	.469	.625

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

As portrayed in the Table 75 below, both stress and trade-off difficulty were significant, however compared to the coefficient of trade-off difficulty was reduced from 3.2 (SE = .461), as previously illustrated in Table 57, to 2.606 (SE = .506).

Table 75. Logistic Regression Predicting Likelihood of Sequential Choice Consistency from Trade-Off Difficulty and Stress for Study II

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Step 1 ^a Stress	-.976	.241	16.416	1	.000	.377	.235	.604
Group(1)	2.606	.506	26.492	1	.000	13.547	5.022	36.547
Constant	2.761	1.036	7.099	1	.008	15.818		

a. Variable(s) entered on step 1: Group.

Since the independent variable and the mediating variable were measured by different scales, namely categorical and continuous, the coefficients of all the variables were standardized. The coefficient of the independent variable (trade-off difficulty) for the direct effect on the dependent variable (consistency) was .663 (SE = .10) and for the indirect effect .500 (SE = 0.10), of the mediating variable (stress) was .517 (SE = 0.127), and of the independent variable (trade-off difficulty) for the direct effect of another dependent variable (stress) was .363 (SE = 0.05). The standardized coefficients revealed similar coefficient change of trade-off difficulty from .663 (SE = .01) to .500 (SE = 0.1). The mediating effect of stress calculated by $\tau - \tau'$ method (.163) produced similar result results with $\alpha\beta$ method (.187). In addition, a Sobel Test z-value of 3.50 (SE = 0.40, $p < .001$) also provided additional evidence of a statistically significant partial mediating effect of stress. Consequently, the fifth hypothesis was supported.

5.3.2 Test for the Moderating Effect of Typicality

Hypothesis VI proposed that there is a significant interaction effect of the trade-off difficulty level with the subsequent choice typicality level on sequential choice consistency. To test for the moderating effect, the trade-off difficulty, the subsequent choice typicality and their interacting were entered into the logistic regression model. Forward stepwise was selected as a method to test the significance of adding typicality level and typicality interacted with trade of difficulty level based on the maximum partial likelihood estimates. As also given in the Table 76, in the first block, trade-off difficulty entered alone in the analysis, and the analysis provided the results of pseudo R squares shown in Table 77. Then, in the next block, the forward selection procedure caused typicality interacted with trade-off difficulty to get entered, but not the typicality alone since its contribution was not found significant. In the second row of the Table 76, the step chi-square, 4.477, indicated that the interaction effect was contributing significantly to the full model and implied that it should be retained. The model chi-square, 69.600, showed that both trade-off difficulty and typicality interacted with trade-off difficulty had significant effects in predicting the likelihood of being consistent in sequential choices.

Table 76. Omnibus Tests of Model Coefficients for Sequential Choice Typicality Interaction

		Chi-square	df	Sig.
Step 1	Step	65.124	1	.000
	Block	65.124	1	.000
	Model	65.124	1	.000
Step 2	Step	4.477	1	.034
	Block	69.600	2	.000
	Model	69.600	2	.000

Similarly, as shown in Table 76 and Table 77, the inclusion of typicality interacted with trade-off difficulty reduced the deviance by 4.777 and made the model better.

Table 77. R Square Statistics for Sequential Choice Typicality Interaction

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	123.148 ^a	.381	.508
2	118.671 ^b	.401	.534

a. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.

Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

Table 78. Logistic Regression Predicting Likelihood of Sequential Choice Consistency from Trade-Off Difficulty, Sequential Choice Typicality and their Interaction

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Step 1 ^a Group(1)	3.200	.461	48.230	1	.000	24.538	9.945	60.547
Constant	-1.442	.308	21.876	1	.000	.236		
Step 2 ^b Group(1)	4.215	.791	28.364	1	.000	67.692	14.351	319.302
Group(1) by Typicality(1)	-1.594	.833	3.657	1	.056	.203	.040	1.040
Constant	-1.442	.308	21.876	1	.000	.236		

a. Variable(s) entered on step 1: Group.

b. Variable(s) entered on step 2: Group * Typicality.

As displayed in the table above, the equation for the relationship between trade-off difficulty, typicality and sequential choice consistency was estimated as:

$$\text{Logit (Consistency)} = -1.442 + 4.215(\text{Trade-off Difficulty}_{\text{Low}}) - 1.594(\text{Trade-off Difficulty}_{\text{Low}}) (\text{Typicality}_{\text{Low}})$$

For example, consider a respondent assigned to a low trade-off difficulty choice condition where the typicality of the sequential choices were also low (low trade-off difficulty = 1, and low typicality = 1). Hence logit (consistency) = $-1.442 + 4.215(1) - 1.594(1) = 1.179$ and $e^{1.179} =$ which gives the Prob (consistency) = $e^{1.179} / (1 + e^{1.179}) = 0.76$; very likely that this subject is consistent across his/her sequential choices. Conversely, the equation is for high typicality is logit (consistency) = $-1.442 + 4.215(1) - 1.594(0) = 2.773$, and the probability of being consistent is $e^{2.773} / (1 + e^{2.773}) = 0.94$. Thus, these findings confirmed the predictions for the sixth hypothesis regarding the low trade-off difficulty situation.

However, there was no support for this hypothesis concerning the moderating effect of the level of typicality on the sequential choice consistency in high trade-off difficulty condition.

The results illustrated that beside trade-off difficulty, neither typicality nor typicality interacted with trade-off difficulty were significant in predicting consistency in sequential choices within the high trade-off difficulty situation. Since the effect of trade-off difficulty on sequential choice difficulty was displayed in the previous tables, only the insignificant effects of typicality and typicality interacted with trade-off difficulty were shown in the following Table 79.

Table 79. Variables not Included in the Logistic Regression Predicting Likelihood of Sequential Choice Consistency Trade-Off Difficulty, Sequential Choice Typicality and their Interaction

			Score	df	Sig.
Step 1	Variables	Typicality(1)	.053	1	.819
		Group(1) by Typicality (1)	2.378	1	.123
		Overall Statistics	6.598	2	.037

5.4 SUMMARY OF RESULTS

The statistical results provided support for the effect of the trade-off difficulty level on sequential choice consistency (Hypothesis I) and the level of stress experienced during making a choice (Hypothesis III), the effect of this stress level on sequential choice consistency (Hypothesis IV), and the mediating effect of this stress level on the relationship between trade-off difficulty level and sequential choice consistency (Hypothesis V). On the contrary, the hypothesis with regard to the moderating effect of the gender of the respondents did not receive support (Hypothesis II). Finally, the hypothesis regarding the moderating effect of the level of choice typicality on the main effect was partially accepted (Hypothesis VI). The summary of the findings of the hypothesis testing for these six hypotheses for both of the main studies are portrayed in the Table 80 below.

Table 80. Summary of the Hypothesis Testing Findings

Hypotheses	Result for Study I	Result for Study II
<p>HI In making sequential choices that involve the same trade-offs between two active goals, consumers are more likely to be consistent across their choices when the trade-off difficulty level is perceived as low than when it is perceived as high.</p>	Accepted	Accepted
<p>III The gender of participants moderates the effect of the trade-off difficulty on sequential choice consistency. Specifically, in low trade-off difficulty choice situations, male participants are more likely to be consistent than females.</p>	Rejected	Rejected
<p>III Consumers are likely to feel more stress during making a choice that involves high trade-off difficulty between two active goals compared to during making a choice that involves low trade-off difficulty.</p>	Accepted	Accepted
<p>HIV Consumers are less likely to be consistent across their sequential choices when they feel more stress during making the initial choice.</p>	Accepted	Accepted
<p>HV The level of stress experienced partially mediates the effect of trade-off difficulty on sequential choice consistency. Specifically, in low trade-off difficulty choice situations, consumers are likely to feel less stress during making the initial choice and, in turn, be more consistent across their sequential choices.</p>	Accepted	Accepted
<p>HVIa In a low trade-off difficulty choice situation, consumers are less likely to be consistent across their sequential choices when the typicality level of subsequent choice was perceived as low than when it was perceived as high.</p>	Accepted	Accepted
<p>HVIb In a high trade-off difficulty choice situation, consumers are less likely to be consistent across their sequential choices when the typicality level of subsequent choice was perceived as low than when it was perceived as high.</p>	Rejected	Rejected

CHAPTER VI

DISCUSSION

This chapter is organized as follows. First, the theoretical contributions of the thesis with regard to answers of research questions derived from the results of the experiments are presented. Then, practical implications of the research findings are discussed. Finally, research limitations and directions for future research are elaborated in separate sections.

6.1 GENERAL DISCUSSION AND THEORETICAL CONTRIBUTIONS

Within the realm of consumer choices, despite the preponderance of the pursuit of a single goal through single or isolated choices, little attention has been given to the regulation of multiple goal pursuits across sequential choices in consumer research literature (Dhar and Simonson, 1999; Fishbach and Dhar, 2005, 2008; Novemsky and Dhar, 2005; Wang et al., 2010). This thesis attempts to make a significant contribution to goal-directed sequential choice literature by providing a framework to predict how consumers make consistent sequential choices that involve the same trade-offs between two active goals. Additionally, the impacts of stress-evoking emotional aspect of making trade-offs and perceived choice typicality are integrated into the model to enrich our understanding of sequential consumer choice consistency phenomenon.

With this regard, the main predictions and the underlying processes implicated in the research model were tested by conducting two studies. Specifically, Study I showed that pursuing goal consistency is more preferred in sequential choices when the choices involve a low level of trade-off difficulty between two active and competing goals. Additionally, this study examined whether the level of stress experienced mediates the proposed effect of trade-off difficulty level on choice consistency in sequential decisions by (1) analyzing the influence of the level of trade-off difficulty on the level of stress experienced in making an initial choice, and (2) the impact of the level of this stress on subsequent goal-directed choice consistency. As a result, Study II illustrated that the proposed main effect can be generalize to conflicting goals other than health and pleasure, namely thrift and pleasure. Moreover, second study built on the first study, and showed how a higher level of the typicality of subsequent choice promotes goal-based choice consistency in sequential decisions.

As stated previously, Research Question I was interested in the effect of trade-off difficulty level on the likelihood of consumers to be consistent across their sequential choices. Accordingly, it was proposed that in sequential choice contexts involving a tradeoff between two active and competing goals, consumers tend to prefer balancing if the level of perceived trade-off difficulty between these two conflict goals is high. Conversely, if consumers perceive low level of difficulty in trading of one goal for another, then they are more likely to pursue the initially chosen goal when making the subsequent choice. Research findings obtained from the two experimental studies supported the proposed main effect. Therefore, the experimental findings seem to be successful in extending the stream of research on sequential choice consistency literature by determining the conditions under which trade-offs between two active

goals may attenuate or promote consistency preference across choices made in a sequence.

Pertaining to the Research Question II, the findings illustrated that the gender of the hypothetical consumer in the scenarios did not result in any favoring or hindering impact on the main effect with regard to the gender of the participants. This result is in line with the ground-breaking study findings of Dhar and Simonson (1999) in this research area. Presumably, the gender variation impact, if there was any, was eliminated by effective independent manipulations throughout the experimental designs.

Present research findings also supported the view that stress as an emotion is a promising and fruitful theme of research in the field of marketing, and particularly in consumer behavior theory (Huber et al., 2008; Moschis, 2007). First of all, the findings with regard to the Research Question III indicated that the perceived trade-off difficulty derived from the conflict of pursuing two active, competing goals in a choice was highly associated with the level of stress experienced in making the choice. To be specific, trade-off difficulty level was shown to be one of the reasons why consumers may experience stress during making choices. For instance, when consumers perceived a high level of trade-off difficulty between two active and conflicting goals such as if maintaining a good health was equally important as getting pleasure, consumers were likely to feel more stress than if one of these goals was much more important. Moreover, considering the Research Question IV, the relevant hypothesis testing results demonstrated that stress was a determinant of behavioral consistency in sequential choices. Specifically, if a consumer has to make

a difficult trade-off between his/her health-seeking and pleasure-seeking goals, an initial choice is less likely to be followed by a similar choice in an ongoing sequence resulting in a sequential choice inconsistency. Although previous research argued that there is a negative relationship between stress induced by life status changes and changes in brand preference (Andreasen, 1984), the findings of the present studies appear to enhance the theory by proposing the conditions under which stress may promote brand switching as it stimulates goal-directed choice switching. Furthermore, the findings showed that stress played a mediating role in the relationship between trade-off difficulty and consumers' sequential choice consistency. In particular, in a low trade-off difficulty choice situation, consumers are likely to feel less stress in making the initial choice and, in turn, be more consistent in their sequential choices. In sum, integrating the role of stress in consumer choice research focusing on the pursuit of conflicting goals both through single and sequential choices make significant contributions to both stress-oriented consumer behavior and goal-directed consumer sequential choice literature.

Another key finding regarding the Research Question V was that the level of subsequent choice typicality weakens or strengthens the impact of trade-off difficulty on sequential choice consistency. The results were partially in the expected directions. Specifically, trade-off difficulty tends to have a stronger impact when people perceive subsequent choice as a high typical to the goal-derived choice category activated. Conversely, the effect of trade-off difficulty may be enhanced by the higher level of typicality of subsequent choice. On the other hand, the relative findings also demonstrated that in high trade-off difficulty situations perceived typicality of subsequent choice did not have an effect on sequential choice

consistency. This finding firstly contributes to consumer behavior theory by enhancing the understating of consumer sequential choice decisions, and then to categorization theory specifically within the consumer research literature by extending the goal-derived product categorization theory to goal-derived sequential consumer choices.

6.2 PRACTICAL IMPLICATIONS

In addition to the theoretical contributions, the findings of the present studies may have many striking practical implications in many areas of marketing field such as new products, branding, online shopping, retail patronage preferences, and advertisements. The opportunities for practical implications are discussed as follows.

Imagine a consumer who is planning to buy a new laptop and a brief case or a mouse. He/she is going to choose between several brands offering conflicting advantages in different areas. For example, one brand has higher quality but expensive and the other brand has less quality but more economic. According the present research findings, if he/she perceives trading his/her quality-seeking goals for thrift-seeking ones as highly difficult, he/she may tend to balance his/her conflicting goal pursuits and choose different brand alternatives for the laptop and mouse choices, and thus may engage in brand switching behavior. This brand switching effect would suggest that brands should offer more diversified features in their supplementary products to encourage brand loyalty in their customers' sequential and related choices if they consider consumers' frequently exposure of such goal conflicts in that particular choice context. This kind of brand commitment

encouragement among related products seems to enhance a brand's overall positioning and strength in consumers' minds. Hence, it is obvious that observing consumers using HP laptops but Microsoft mouse devices may contribute differently to the brands than observing consumers preferring HP brand both for their laptops well as their mouse devices.

Marketers may use consumers' desires to appear consistent both in their own eyes and in the eyes of others (Drolet, 2002; Fishbach et al., 2006; Nordgren and Dijksterhuis, 2009) to encourage choice consistency even when they face with highly difficult trade-offs between conflicting goals. For instance, if a consumer wants to be identified as a prestige brand user, which is the case in the current youth generation, marketers may make him/her believe that he/she could not be a real brand user or identified as one by others unless he/she makes all his/her purchases from that specific brand being promoted. The behavioral consistency expected to be rewarded by others may lead him/her to be consistent across his/her sequential choices, for example, when he/she goes out for apparel shopping.

Specifically, marketing practitioners promoting environmentally friendly products may emphasize the importance being consistent across sequential choices involving trade-offs between personal and environmental goals. For instance, marketers may stress that preferring environmental benign products in an area (especially in the ones that does not require making difficult trade-offs) should be supported by products in many other areas (especially in the ones that require making difficult trade-offs) if consumers want to feel proud of themselves and to gain respect from others because of being an environmentally friendly person.

Consumers are emotional beings (Bettman et al., 1998), and thus without taking emotions into account it seems that none of the framework could fully and accurately explain consumers' behaviors. However, much is not known about the role of emotions in the marketing field (Bagozzi et al., 1999). Particularly, although many consumer purchases and consumption decisions involve making trade-offs (Bettman et al., 1991; Chitturi et al., 2005) and stress is cited as one of the most frequently experienced emotions during these decision processes, marketing literature has been surprisingly silent on this issue (Moschis, 2007). Therefore, research findings with regard to stress concept may offer exciting implication suggestions for marketers.

Based on the present findings indicating that stress evoked by making difficult trade-off between two active and conflicting goals may lead to choice inconsistencies, marketers may develop their tactics to avoid brand switching driven by the presence of goal conflicts in sequential consumer decisions. Emmons (1999) pointed out that one way to cope with stress is to prioritize one of the conflicting goals. This suggestion may be followed in dealing with choice-related stress that may make the trade-offs easier and thus result in brand-loyal sequential consumer choices. In general, when consumers feel stress, they tend to consider the suggestions of others such as marketers (Andreasen, 1984). Since, consumers often seek justification for their decision from others (Bettman, et al, 1998). More importantly, consumers may become more vulnerable to the suggestions of marketing providers to reduce their stress (Lee et al., 2001). Therefore, marketers should explore sources of tradeoff-induced stress, find ways to reduce it, and after that introduce these mechanisms to consumers. Thus, they may direct consumers to initiate, intensify or change their

consumption habits in favor of their companies, products or brands. In a similar vein, advertisements may first reflect or even promote the stress induced by real-life goal conflicts that require making difficult trade-offs, and then may provide the company or the brand as a justifiable solution for that specific trade-off problem. As shown by Kim and his associates (2010), products' emotional claims have important effects on consumers' product evaluations, specifically when they match consumers' preexisting feelings. To put it simply, when an advertisement evokes the feeling of stress, a product's or brand's emotional claim of a way of coping with or eliminating stress may become more effective.

According to emotion-transience theory, consumers make trade-offs between immediate affects and long-term interests based on their belief in that emotions are fleeting or lasting (Labroo and Mukhopadhyay, 2009). In particular, when consumers feel bad rather than good, they are more likely to focus on long-term interests if they believe that emotion is fleeting. On the contrary, if they believe that emotion is lasting, they may engage in affect regulation to repair a current negative mood and then be more likely to indulge. By the same token, while managing consumers' tradeoff-induced stress, marketers should emphasize that this negative affective state will continue, if they are trying to promote a hedonic product. On the contrary, they should highlight that this negative emotion will pass sooner, if the promoted product is a utilitarian one.

The present research bears practical implications beyond stress, which is the extension of goal-derived product categories to sequential choice context. Goal-derived categories and the across-category consumer choices call for a more complex

and extended definition of competition and brand choice (Corfman, 1991; Ratneshwar et al., 1996). For instance, a brand is not only competing with other brands in the same product category but also with many other brands from many different product classes based on an abstract level of comparison on values and goals. Therefore, many current successful brands recently have started to position their brands around emotions and consumer goals such as a way of being happy, having fun or connecting people to the life. Consistent with this view, the advertisers should focus on consumer values satisfied by product attributes when promoting brands in both direct and indirect competition areas (Corfman, 1991).

The impact of goal-derived category formation in a goal-conflict choice situation may also be evaluated in terms of marketing interventions to help consumers in dealing with this conflict. For instance, supermarkets often use single price promotions to increase sales such as “\$1 each” including many brands from different product categories. Similarly, the in-store layouts, indeed only a certain part, may be reorganized to promote the consumption of particular products or brands serving to specific consumer goals. Specifically, rather than categorizing all the products according to common categories, a part of the store layout may be designed considering some specific goal-derived categories. For instance, there might be a section in a retail store composed of “products to buy when on a diet” including such as diet foods, health-care products, health-themed magazines, aerobic and plates CDs, or sports equipments. This type of design may encourage consumers to buy more products because their health-related goals may be primed when they are exposed to such a goal-derived category in a supermarket. In terms of brands, representing a brand in that category may facilitate its positioning on health-related

values in consumers' minds, especially for new products or new brands. Supporting this proposal, previous research provides evidence that the ways in which consumers categorize products may have important practical applications for firms (Lajos et al., 2009). A similar goal-directed product categorization approach may be applied in online shopping environments to increase consumer satisfaction with the shopping experiences and to promote subsequent choices.

6.3 LIMITATIONS

The present research has several limitations. One of the limitations is that both of the experimental studies employed hypothetical choices situations created by written scenarios. Although, these scenarios are commonly accepted as a good way of reflecting real-life experiences (e.g., Caro et al., 2011; Hughes, 1998; Rahman, 1996), analyses of actual choices may be supportive in validating or be helpful in enriching the present research findings.

A second limitation is that the influence of some other factors such as the number of attribute levels (e.g., Dhar, 1997), the difficulty of processing information (e.g., Novemsky et al., 2007), the number of alternatives in a consideration set (e.g., Sela et al., 2009), time pressure (e.g., Bettman et al., 1998) on trade-off conflict difficulty, and their interaction with the context were not examined. Therefore, the level of trade-off difficulty on sequential choice consistency should be assessed by using other tasks and contexts.

A third limitation of the studies relates to the manipulation of the level of trade-off difficulty and choice typicality. They were manipulated by the same single way in both of the experiments, and thus the robustness of these research findings should be examined by using a wider range of experimental manipulations.

Another limitation is that the choice sets were limited to two alternatives in both of the experiments. Adding a “no difference” (e.g., Dhar, 1999), “no choice” (e.g., Dhar, 1997) or middle option allowing participants to make fairly small trade-offs (e.g., Wang et al., 2010) may also impact the proposed main effect of trade-off difficulty level on sequential choices either positively or negatively. Additionally, these inclusions may support the realism of the hypothetical choices tasks.

Finally, the level stress experienced in making an initial choice was assessed by verbal self-reports of participants on a single item following the common way in related previous consumer research studies (e.g., Lee et al., 2001). However, taking into account the several limitations of linguistic expressions of emotions (Loewenstein, 1996; Richins, 1997), this assessment may need to be supported by the bodily manifestations such as facial expressions, bodily postures, eye-tracking, heart rate, electrodermal reaction or brain imaging (Koole, 2009; Sørensen, 2008).

6.4 DIRECTIONS FOR FUTURE RESEARCH

Beyond the limitations, the findings of present experiments present several directions for future research. One stream of research area is the consistency of goal-directed consumer choices made in the presence of goal conflicts. Since goals have key roles

in guiding consumer behaviors and these goals are often in competition with each other, the consistency of goal-directed consumer choices in the presence of goal conflicts may also contribute to theories other than sequential consumer choice such as self-control and emotion regulation. These opportunities for future research in the field of consumer behavior are as follows.

One of the promising areas of inquiry is examining the proposed framework in the passive management of goal conflicts situations. Previous research provided an effect of goal conflicts on consumers' sequential choices in the opposite direction of consistencies for experienced (passive goal guidance system) versus hypothetical choice situations (active goal guidance system) (Laran, 2010). Likewise, in making sequential choices whether being aware of going to make similar choices or not impacts consistency propensity is a worthwhile question for further research. Since, it was found that consumers' beliefs about whether an initial choice might occur more than in future affect their following choices (Khan and Dhar, 2006).

Moreover, with regard to trade-off difficulty effect, changing the trade-off size (Wang et al., 2010) may provide further insight in understanding the impact of trade-off difficulty on consumer sequential choices. Furthermore, future research may profitably explore the impact of trade-off difficulty by focusing on different types of trade-offs such as the combinations of personal, social and environmental goals. Presumably, consumers may respond to a trade-off between a personal and an environmental goal differently.

Another interesting direction for future studies might be the influence of other's choices (e.g., a friend, spouse, or colleague) on one's sequential choice consistency. In a related vein, Laran (2010) recently asserted that consumers tend to balance the pursuit of multiple personal goals, whereas to highlight pleasure-seeking goal for others in sequential choices. It may be proposed that within a relative vice and relative virtue choice situation, if the other party chooses a different alternative than one's initial choice, in the second choice he/she may be more likely to make a choice consistent with the other party's first choice. This may happen because the one may not want to make the other party feel guiltier or because the other party's first relative vice choice serves as a justification for choosing a relative vice in the one's subsequent choice when he/she has chosen a relative virtue in the initial choice. Supporting this interpretation, Khan and Dhar (2006) noted that the individuals are more likely to choose a relative vice when they view the choice as one of a series of similar future choices, because similar repeated choices provide a guilt-reducing justification. Likewise, decisions are highly social context dependent meaning that consumers are often tried to justify a decision to others or to one's self (Bettman et al., 1998).

Another stream of research direction is related to the role of stress on consumer behaviors. In accordance with this view, Bagozzi and his colleagues (1999) suggested many research areas concerning emotions in marketing literature such as the relationship between different emotions and the effects of emotions on customer satisfaction. For example, Andreasen (1984) stated that many consumption decisions induce different interdependent emotions in sequence such as sadness may increase the impact of stress, and when stress is lessened regret may be experienced. Passyn

and Sujan (2006) recommended to examine single emotions and mixed emotions within one framework in terms of the motivating effect of their valence (the same or opposite), other appraisals and their interaction. Combining the findings of this study with the suggestions, the association between stress and various other types of emotions especially regret and guilt as well as their interactions on consumer sequential or simultaneous choices seems valuable areas of future research for both marketing and consumer behavior literature. For example, it would be useful to investigate the circumstances under which stress and regret jointly promote or inhibit consistency in sequential choices. In specific, it may be proposed that stress moderates the effects of regret on subsequent behavior. In addition, the inhibiting and promoting effects of the presence of others on how individuals manage their emotions were supported in several studies (Erber and Erber, 2000). By taking into account the role of social interaction on emotion regulation, future research is required to further investigate the impact of stress on sequential choice consistency within the social interaction context. Moreover, if so, when and how consumption-related stress leads to customer dissatisfaction and, in turn, to less favorable brand evaluations or even decreased consumptions may further contribute to the understanding of the joint impact of emotions on behavioral intentions and actual behaviors of consumers.

Notable research studied the impacts of emotions on categorization (Bagozzi, 1999). It was found that people in positive mood states, compared to the ones in negative mood states, are more likely to form fewer and broader categories when focusing on similarities among exemplars, and more and narrower categories when focusing on differences (Murray et al., 1990). Similarly, those positive-mood people tend to

integrate information, find relationships among stimuli and discover creative solutions better than the ones in neutral or negative mood states (Bagozzi, 1999). Consequently, the influence of stress on consumer categorization, evaluation of the typicality of products in a given category, formation of consideration sets, and eventually consumer choices are other issues that merit inquiry. To conclude, it is hoped that this study will encourage further investigation of the role of stress in consumer and marketing research literature in several ways. However it should be noted that, Moschis (2007) also address some other directions for further research on stress such as how different types of stressors (acute and chronic) affect consumer decision processes, whether these different stressors lead to different patterns of information processing and consumer choices, and the relationship between specific types of stressors and information processing elements.

Finally, Wang and his colleagues (2010) recently argued that making trade-offs depletes executive resources, and this also has influences on one's subsequent choices. Thus it can be expected that, beside the size of trade-off difficulty, the level of difficulty in making such a trade-off may lead exerting different levels of self-control which depletes executive resources, and eventually impacts subsequent choices. Therefore, self-control theory would benefit new insights by exploring the depleting impact of trade-off difficulty on subsequent goal-congruent choices.

REFERENCES

Aaker, J., Drolet, A., and Griffin, D. 2008. "Recalling Mixed Emotions", *Journal of Consumer Research*, 35 (2), 268-278.

Alexander, C. S., and Becker, H. J. 1978. "The Use of Vignettes in Survey Research", *Public Opinion Quarterly*, 42 (1), 93-104.

Andrade, E. B. 2005. "Behavioral Consequences of Affect: Combining Evaluative and Regulatory Mechanisms", *Journal of Consumer Research*, 32 (3), 355-362.

Andrade, E. B., and Cohen, J. B. 2007. "On the Consumption of Negative Feelings", *Journal of Consumer Research*, 34 (3), 283-300.

Andreasen, A. R. 1984. "Life Status Changes and Changes in Consumer Preferences and Satisfaction", *Journal of Consumer Research*, 11 (3), 784-794.

Arora N., and Huber, J. 2001. "Improving Parameter Estimates and Model Prediction by Aggregate Customization in Choice Experiments", *Journal of Consumer Research*, 28 (2), 273-283.

Ashcraft, M. H. 1978. "Property Norms for Typical and Atypical Items from 17 Categories: A Description and Discussion", *Memory & Cognition*, 6 (3), 227-232.

Atzmüller, C., and Steiner, P. M. 2010. "Experimental Vignette Studies in Survey Research", *Methodology*, 6 (3), 128-138.

Bagozzi, R. P., Baumgartner, H., Pieters, R., and Zeelenberg, M. 2000. "The Role of Emotions in Goal-Directed Behavior", in *The Why of Consumption*, S. Ratneshwar, David Glen Mick, and Cynthia Huffman (Eds.), London: Routledge, 36–58.

Bagozzi, R. P., and Dholakia, U. 1999. "Goal Setting and Goal Striving in Consumer Behavior", *Journal of Marketing*, 63 (4), 19-32.

Bagozzi, R. P., Gopinath, M., and Nyer, P. U. 1999. "The Role of Emotions in Marketing," *Journal of the Academy of Marketing Science*, 27 (2), 184–206.

Baron, R. M., and 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 (6), 1173-1182.

Barsalou, L.W. 1983. "Ad Hoc Categories", *Memory & Cognition*, 11 (3), 211-227.

Barter, C., and Renold, E. 1999. "The Use of Vignettes in Qualitative Research", *Social Research Update*, 25, 1-4.

Baumeister, R. F., Sparks, E. A., Stillman, T. F., and Vohs, K. D. 2008. "Free Will in Consumer Behavior: Self-Control, Ego Depletion, and Choice", *Journal of Consumer Psychology*, 18 (1), 4–13.

Beattie J., and Barlas, S. 2001. "Predicting Perceived Differences in Tradeoff Difficulty", in *Conflicts and Tradeoffs in Decision Making*, Elke U. Weber, Jonathan Baron and Graham Loomes (Eds.), Cambridge: Cambridge University Press, 25-64.

Bettman, J. R., Johnson, E. J., and Payne, J. W. 1991. "Consumer Decision Making", in *Handbook of Consumer Behavior*, Thomas S. Robertson and Harold H. Kassarian (Eds.), New Jersey: Prentice Hall, 50-84.

Bettman, J. R., Luce, M. F., and Payne, J. W. 1998. "Constructive Consumer Choice Processes", *Journal of Consumer Research*, 25 (3), 187-217.

Boyle, B. A. 2000. "The Impact of Customer Characteristics and Moral Philosophies on Ethical Judgments of Salespeople", *Journal of Business Ethics*, 23 (3), 249-267.

Burroughs, J. E., and Rindfleish, A. 1997. "Materialism as a Coping Mechanism: An Inquiry into Family Disruption", in *Advances in Consumer Research*, Merrie Brucks and Deborah J. MacInnis (Eds.), Provo, UT: Association for Consumer Research, 24, 89-97.

Burroughs, J. E., and Rindfleish, A. 2002. "Materialism and Well-Being: A conflicting Values Perspective", *Journal of Consumer Research*, 29 (3), 348-370.

Carmon, Z., Wertenbroch, K., and Zeelenberg, M. 2003. "Option Attachment: When Deliberating Makes Choosing Feel like Losing", *Journal of Consumer Research*, 30 (1), 15-29.

Caro, F. G., Ho, T., McFadden, D., Gottlieb, A. S., Yee, C., Chan, T., and Winter, J. 2011. "Using the Internet to Administer More Realistic Vignette Experiments", *Social Science Computer Review*, retrieved from <http://ssc.sagepub.com/content/early/2010/12/15/0894439310391376>.

Carson, R T., Louviere, J. J., Anderson, D. A., Arabie, P., Bunch, D. S., Hensher, D. A., Johnson, R. M., Kuhfeld, W. F., Steinberg, D., Swait, J., Timmermans, H., and Wiley, J. B. 1994. "Experimental Analysis of Choice," *Marketing Letters*, 5 (4), 351-367.

Carstensen, L. 1995. "Evidence for a Life-Span Theory of Socioemotional Selectivity", *Current Directions in Psychological Science*, 4 (5), 151-156.

Casserta M. S., and Lund D. 1992. "Bereavement, Stress and Coping among Older Adults", *Omega*, 25 (1), 33-45.

Chartrand, T. L., Huber, J., Shiv, B., and Tanner, R. J. 2008. "Nonconscious Goals and Consumer Choice", *Journal of Consumer Research*, 35 (2), 189-201.

Chatterjee, S., and Heath, T. B. 1996. "Conflict and Loss Aversion in Multiattribute Choice: The Effects of Trade-Off Size and Reference Dependence on Decision Difficulty", *Organizational Behavior and Human Decision Processes*, 67 (2), 144-155.

Chitturi, R., Raghunathan, R., and Mahajan, V. 2005. "Form vs. Function: Emotional and Behavioral Consequences of Hedonic vs. Functional Tradeoffs", in *Asia Pacific Advances in Consumer Research*, Yong-Uon Ha and Youjae Yi (Eds.), Duluth, MN: Association for Consumer Research, 6, 74-75.

Chitturi, R., Raghunathan, R., and Mahajan, V. 2007. "Form Versus Function: How the Intensities of Specific Emotions Evoked in Functional Versus Hedonic Trade-Offs Mediate Product Preferences", *Journal of Marketing Research*, 44 (4), 702-714.

Chun, W. Y., and Kruglanski, A. W. 2005. "Consumption as a Multiple-Goal Pursuit Without Awareness", in *Applying Social Cognition to Consumer-Focused Strategy*, Frank R. Kardes, Paul M. Herr, and Jacques Nantel (Eds.), Mahwah, NJ: Lawrence Erlbaum Associates, 201- 218.

Cohen, J. 1988. *Statistical Power Analysis for the Behavior Sciences*. New Jersey: Lawrence Erlbaum Associates.

Cohen, J. 1992. "A Power Primer", *Psychological Bulletin*, 112 (1), 155-159.

Cohen, J. B., and Andrade, E. B. 2004. "Affective Intuition and Task-Contingent Affect Regulation", *Journal of Consumer Research*, 31 (2), 358-367.

Corfman, K. P. 1991. "Comparability and Comparison Levels Used in Choices among Consumer Products", *Journal of Marketing Research*, 28 (3), 368-374.

David, M., and Sutton, C. D. 2004. *Social Research*. California: Sage Publications.

Davidson, R. J. 1994. "Asymmetric Brain Function, Affective Style and Psychopathology: The Role of Early Experience and Plasticity", *Development and Psychopathology*, 6 (4), 741-758.

Davidson, R. J. 1998. "Affective Style and Affective Disorders: Perspectives from Affective Neuroscience", *Cognition and Emotion*, 12 (3), 307-330.

Demidenko, E. 2007. "Sample Size Determination for Logistic regression Revisited", *Statistics in Medicine*, 26 (18), 3385-3397.

DeVilles, R. F. 2003. *Scale Development: Theory and Applications*. California: Sage Publications.

Dewitte, S., Bruyneel, S., and Geyskens, K. 2009. "Self-Regulating Enhances Self-Regulation in Subsequent Consumer Decisions Involving Similar Response Conflicts", *Journal of Consumer Research*, 36 (3), 394-405.

Dhar, R. 1997. "Consumer Preference for a No-Choice Option", *Journal of Consumer Research*, 24 (2), 215-31.

Dhar, R., Huber, J., and Khan, U. 2007. "Shopping Momentum", *Journal of Marketing Research*, 44 (3), 370-378.

Dhar, R., and Simonson, I. 1999. "Making Complementary Choices in Consumption Episodes: Highlighting Versus Balancing", *Journal of Marketing Research*, 36 (1), 29-44.

Dhar, H., and Supagro, F. F. 2008. "Effect of Goal Salience and Goal Conflict on Typicality: The Case of Health Food", in *Advances in Consumer Research*, Angela Y. Lee and Dilip Soman (Eds.), Duluth, MN: Association for Consumer Research, 35, 282-288.

Drolet, A. 2002. "Inherent Rule Variability in Consumer Choice: Changing Rules for Change's Sake", *Journal of Consumer Research*, 29 (3), 293–305.

Duhachek, A. 2005. "Coping: A Multidimensional, Hierarchical Framework of Responses to Stressful Consumption Episodes", *Journal of Consumer Research*, 32 (1), 41–53.

Emmons, R. A. 1999. *The Psychology of Ultimate Concerns: Motivation and Spirituality in Personality*. New York: Guilford.

Erber, R., and Erber, M.W. 2000. "The Self-Regulation of Moods: Second Thoughts on the Importance of Happiness in Everyday Life", *Psychological Inquiry*, 11 (3), 142-148.

Erber, R., Wegner, D. M., and Therriault, N. 1996. "On Being Cool and Collected: Mood Regulation in Anticipation of Social Interaction", *Journal of Personality and Social Psychology*, 70 (4), 757–766.

Festinger, L. 1957. *A Theory of Cognitive Dissonance*. California: Stanford University Press.

Finch, J. 1987. "The Vignette Technique in Survey Research", *Sociology*, 21 (1), 105-114.

Fishbach, A., and Dhar, R. 2005. "Goals as Excuses or Guides: The Liberating Effect of Perceived Goal Progress on Choice", *Journal of Consumer Research*, 32 (3), 370-377.

Fishbach, A., and Dhar, R. 2008. "Dynamics of Goal-Based Choice: Toward an Understanding of How Goals Commit versus Liberate Choice", in *Handbook of Consumer Psychology*, Curtis P. Haugtvedt, Paul M. Herr, and Frank Kardes (Eds.), NY: Psychology Press, 611-637.

Fishbach, A., Dhar, R., and Zhang, Y. 2006. "Subgoals as Substitutes or Complements: The Role of Goal Accessibility", *Journal of Personality and Social Psychology*, 91 (2), 232-242.

Fitzsimons, G. J. 2000. "Consumer Response to Stockouts", *Journal of Consumer Research*, 27 (2), 249-266.

Fitzsimons, G. 2009. "Effects of Personal vs. Interpersonal Goal Conflicts on Goal Commitment and Goal-Based Choice", in *Advances in Consumer Research*, Ann L. McGill and Sharon Shavitt (Eds.), Duluth, MN: Association for Consumer Research, 36, 202-205.

Garry, T. 2007. "Consumer Sophistication and the Role of Emotion on Satisfaction Judgments within Credence Services", *Journal of Consumer Behaviour*, 6 (6), 383–397.

Green, P. E. 1974. "On the Design of Choice Experiments Involving Multifactor Alternatives", *Journal of Consumer Research*, 1 (2), 61-68.

Gross, J. 1998. "The Emerging Field of Emotion Regulation: An Integrative Review", *Review of General Psychology*, 2 (3), 271-299.

Gross, J. J. 1999. "Emotion Regulation: Past, Present, Future", *Cognition and Emotion*, 13 (5), 551-573.

Gross, J. J., and Thompson, R. A. 2007. "Emotion Regulation: Conceptual Findings", in *Handbook of Emotion Regulation*, James J. Gross (Ed.), NY: Guilford, 3-24.

Haberman, S. J. 1988. "A Warning on the Use of Chi-Squared Statistics with Frequency Tables with Small Expected Cell Counts", *Journal of the American Statistical Association*, 83 (402), 555-560.

Hampton, J. A., and Gardiner, M. M. 1983. "Measures of Internal Category Structure: A Correlational Analysis of Normative Data", *British Journal of Psychology*, 74 (4), 491-516.

- Harrell, F. E. 2001. *Regression Modeling Strategies*. New York: Springer.
- Havlena, W. J., and Holbrook, M. B. 1986. "The Varieties of Consumption Experience: Comparing Two Typologies of Emotion in Consumer Behavior", *Journal of Consumer Research*, 13 (3), 394-404.
- Hayes, A. F. 2009. "Beyond Baron and Kenny: Statistical Mediation Analysis in the New Millenium", *Communication Monographs*, 76 (4), 408-420.
- Heitler, S. M. 1990. *From Conflict to Resolution: Strategies for Diagnosis and Treatment of Distressed Individuals, Couples, and Families*. New York: Norton & Co.
- Holbrook, M., and Hirschman, E. C. 1982. "The Experiential Aspects of Consumption: Consumer Fantasies, Feelings, and Fun", *Journal of Consumer Research*, 9 (2), 132-140.
- Holmes, T. H., and Rahe, R. H. 1967. "The Social Readjustment Rating Scale" *Journal of Psychosomatic Research*, 11 (2), 213-218.
- Hosmer, D. W., and Lemeshow, S. 2000. *Applied Logistic Regression*. New York: Wiley.
- Howell, D. C. 2010. *Statistical Methods for Psychology*. USA: Cengage Learning.

Huber, J., Goldsmith, K., and Mogilner, C. 2008. "Reinforcement versus Balance Response in Sequential Choice", *Marketing Letters*, 19 (3), 229-239.

Huffman, C., and Houston, M. J. 1993. "Goal-Oriented Experiences and the Development of Knowledge", *Journal of Consumer Research*, 20 (2), 190-207.

Huffman, C., Ratneshwar, S., and Mick, D. G. 2000. "Consumer Goal Structures and Goal Determination Processes: An Integrative Framework" in *The Why of Consumption*, S. Ratneshwar, David Glen Mick, and Cynthia Huffman (Eds). London: Routledge, 9-35.

Hughes, R. 1998. "Considering the Vignette Technique its Application to a Study of Drug Injecting and HIV Risk and Safer Behavior", *Sociology of Health & Illness*, 20 (3), 381-400.

Hui, M. K., and Bateson, J. E. G. 1991. "Control and the Effects of Crowding and Consumer Choice on the Service Experience", *Journal of Consumer Research*, 18 (2), 174-184.

Isen, A. M., and Geva, N. 1987. "The Influence of Positive Affect on Acceptable Level of Risk: The Person with a Large Canoe has a Large Worry", *Organizational Behavior and Human Decision Processes*, 39 (2), 145-154.

Isen, A. M., Nygren, T. E., and Ashby, F. G. 1988. "Influence of Positive Affect on the Subjective Utility of Gains and Losses: It is Just not Worth the Risk", *Journal of Personality and Social Psychology*, 55 (5), 710-717.

Isen, A. M., and Patrick, R. 1983. "The Effect of Positive Feelings on Risk-Taking: When the Chips are Down", *Organizational Behavior and Human Performance*, 31 (2), 194-202.

Johnson, M. D., 1989. "The Differential Processing of Product Category and Noncomparable Choice Alternatives", *Journal of Consumer Research*, 16 (3), 300-309.

Johnson, E. J., and Meyer, R. J. 1984. "Compensatory Choice Models of Noncompensatory Processes: The Effect of Varying Context", *Journal of Consumer Research*, 11 (1), 528-541.

Judd, C. M., and Kenny, D. A. 1981. *Estimating the Effects of Social Interventions*. Cambridge: Cambridge University Press.

Kahn, B. E., and Isen, A. M. 1993. "The Influence of Positive Affect on Variety Seeking Among Safe, Enjoyable Products", *Journal of Consumer Research*, 20 (2), 257-270.

Keinan, G. 1994. "Effects of Stress and Tolerance of Ambiguity on Magical Thinking", *Journal of Personality and Social Psychology*, 67 (1), 48-55.

Keinan, G. 2002. "The Effects of Stress and Desire for Control on Superstitious Behavior", *Personality and Social Psychology Bulletin*, 28 (1), 102-108.

Khan, U., and Dhar, R. 2006. "The Effect of Future Choices on Current Preferences", Working Paper, retrieved from *The Center for Behavioral Decision Research Publications Database*: http://cbdr.cmu.edu/papers/pdfs/cdr_157.pdf.

Kim, H., Park, K., and Schwarz, N. 2010. "Will This Trip Really Be Exciting? The Role of Incidental Emotions in Product Evaluation", *Journal of Consumer Research*, 36 (6), 983-991.

Koole, S. L. 2009. "The Psychology of Emotion Regulation: An Integrative Review", *Cognition & Emotion*, 23 (1), 4-41.

Labroo, A. A., and Ramanathan, S. 2007. "The Influence of Experience and Sequence of Conflicting Emotions on Ad Attitudes", *Journal of Consumer Research*, 33 (4), 523-528.

Labroo, A. A., and Patrick, V. M. 2009. "Psychological Distancing: Why Happiness Helps You See the Big Picture", *Journal of Consumer Research*, 35 (5), 800-809.

Lajos, J., Katona, Z., Chattopadhyay, A., and Sarvary, M. 2009. "Category Activation Model: A Spreading Activation Network Model of Subcategory Positioning When Categorization Uncertainty is High", *Journal of Consumer Research*, 36 (1), 122-136.

Laran, J. 2010. "Goal Management in Sequential Choices: Consumer Choices for Others Are More Indulgent than Personal Choices," *Journal of Consumer Research*, 37 (2), 304-314.

Laran, J., and Janiszewski, C. 2009. "Behavioral Consistency and Inconsistency in the Resolution of Goal Conflict", *Journal of Consumer Research*, 35 (6), 967-984.

Lau-Gesk, L. 2005. "Understanding Consumer Evaluations of Mixed Affective Experiences", *Journal of Consumer Research*, 32 (1), 23-28.

Lau-Gesk, L. and Meyers-Levy, J. 2009. "Emotional Persuasion: When the Valence versus the Resource Demands of Emotions Influence Consumers' Attitudes", *Journal of Consumer Research*, 36 (4), 585-599.

Lazarus, R., S., and Folkman, S., and Gruen, R. 1984. *Stress, Appraisal, and Coping*. New York: Springer.

Lee, L., Amir, O., and Dan, A., 2009. "In Search of Homo Economicus: Cognitive Noise and the Role of Emotion in Preference Consistency", *Journal of Consumer Research*, 36 (2), 173-187.

Lee, E., Moschis, G. P., and Mathur, A. 2001. "A Study of Life Events and Changes in Patronage Preferences", *Journal of Business Research*, 54 (1), 25-38.

Levav, J., and McGraw, A. P. 2009. "Emotional Accounting: How Feelings About Money Influence Consumer Choice", *Journal of Marketing Research*, 46 (1), 66-80.

Loewenstein, G. 1996. "Out of Control: Visceral Influences on Behavior", *Organizational Behavior and Human Decision Processes*, 65 (3), 272-92.

Loewenstein, G. F., Weber, E. U., Hsee, C. K., and Welch, N. 2001. "Risk as Feelings", *Psychological Bulletin*, 127 (2), 267-286.

Loken, B., and Ward, J. 1987. "Measures of the Attribute Structure Underlying Product Typicality", in *Advances in Consumer Research*, Melanie Wallendorf and Paul Anderson (Eds.), Provo, UT: Association for Consumer Research, 16, 22-26.

Loken, B., and Ward, J. 1990. "Alternative Approaches to Understanding the Determinants of Typicality", *Journal of Consumer Research*, 17 (2), 111-126.

Louro, M. J., Pieters, R., and Zeelenberg, M. 2005. "Negative Returns on Positive Emotions: The Influence of Pride and Self-Regulatory Goals on Repurchase Decisions", *Journal of Consumer Research*, 31 (4), 833-840.

Luce, M. F. 1998. "Choosing to Avoid: Coping with Negatively Emotion-Laden Consumer Decisions", *Journal of Consumer Research*, 24 (4), 409-433.

Luce, M. F., Bettman, J. R., and Payne, J. W. 1997. "Choice Processing in Emotionally Difficult Decisions", *Journal of Experimental Psychology*, 23 (2), 384-405.

Luce, M. F., and Kahn, B. E. 1999. "Avoidance or Vigilance? The Psychology of False-Positive Test Results", *Journal of Consumer Research*, 26 (3), 242-259.

Mackinnon, D. P., and Dwyer, J. H. 1993. "Estimating Mediated effects in Prevention Studies", *Evaluation Review*, 17 (2), 144-158.

Malhotra, N. K. 2007. *Marketing Research: An Applied Orientation*. New Jersey: Prentice Hall.

Malt, B. C., and Smith, E. E. 1982. "The Role of Familiarity in Determining Typicality", *Memory & Cognition*, 10 (1), 69-75.

Marczyk, G. R., DeMatteo, D., and Festinger, D. 2005. *Essentials of Research Design and Methodology*. New Jersey: John Wiley & Sons.

Markman, A. B., and Brendl, C. M. 2000. "The Influence of Goals on Value and Choice," in *The Psychology of Learning and Motivation: Research and Theory*, Douglas Medin (Ed.), San Diego, CA: Academic Press, 97–128.

Mathur, A., Moschis, G. P., and Lee, E. 2003. "Life Events and Brand Preference Changes", *Journal of Consumer Behavior*, 3 (2), 129–141.

McClure, S. M., Botvinick, M. W., Yeung, N., Greene, J. D., and Cohen, J. D. 2007. "Conflicting Monitoring in Cognition-Emotion Competition", in *Handbook of Emotion Regulation*, James J. Gross (Eds.), NY: Guilford, 204-228.

Menard, S. 1995. *Applied Logistic Regression Analysis*. California: Sage Publications.

Mick, D. G., and Fournier, S. 1998. "Paradoxes of Technology: Consumer Cognizance, Emotions, and Coping Strategies", *Journal of Consumer Research*, 25 (2), 123–143.

Miller, E. G., Kahn, B. E., and Luce, M. F. 2008. "Consumer Wait Management Strategies for Negative Service Events: A Coping Approach", *Journal of Consumer Research*, 34 (5), 635-648.

Montgomery, H. 1989. "From Cognition to Action: The Search for Dominance in Decision Making. Process and Structure in Human Decision Making", in *Process and Structure in Human Decision Making*, Henry Montgomery and Ola Svenson (Eds.), Oxford, England: John Wiley & Sons, 23-49.

Montgomery, N. C., and Unnava, H. R. 2007. "Temporal Sequence Effects: A Memory Framework", in *Advances in Consumer Research*, Gavan Fitzsimons and Vicki Morwitz (Eds.), Duluth, MN: Association for Consumer Research, 34, 743-744.

Moorman, C. 2002. "Consumer Health under the Scope", *Journal of Consumer Research*, 29 (1), 152-158.

Moschis, G. P. 2007. "Stress and Consumer Behavior", *Journal of the Academy Marketing Science*, 35 (3), 430-444.

Muraven, M., and Baumeister, R. F., 2000. "Self-Regulation and Depletion of Limited Resources: Does Self-Control Resemble a Muscle?", *Psychological Bulletin*, 126 (2), 247-259.

Muraven, M., Tice, D. M., and Baumeister, R. F. 1998. "Self-Control as Limited Resource: Regulatory Depletion Patterns", *Journal of Personality and Social Psychology*, 74 (3), 774-789.

Murray, N., Sujan, H., Hirt, E. R., and Sujan, M. 1990. "The Influence of Mood on Categorization: A Cognitive Flexibility Interpretation", *Journal of Personality and Social Psychology*, 59 (3), 411-425.

Nedungadi, P., and Hutchinson J. W. 1985. "The Prototypicality of Brands: Relationships with Brand Awareness, Preference and Usage", in *Advances in Consumer Research*, Elizabeth C. Hirschman and Moris B. Holbrook (Eds.), Provo, UT: Association for Consumer Research, 12, 498-503.

Nordgren, L. F., and Dijksterhuis, A. 2009. "The Devil is in the Deliberation: Thinking Too Much Reduces Preference Consistency", *Journal of Consumer Research*, 36 (1), 39-46.

Nosanchuk, T. A. 1972. "The Vignette as an Experimental Approach to the Study of Social Status: An Exploratory Study", *Social Science Research*, 1 (1), 107-120.

Novemsky N., and Dhar, R. 2005. "Goal Fulfillment and Goal Targets in Sequential Choice", *Journal of Consumer Research*, 32 (3), 396-404.

Novemsky, N., Dhar, R., Wang, J., and Baumesiter, R. F. 2007. "Effects of Depletion in Sequential Choice", Working Paper, Yale School of Management Press.

Passyn, K., and Sujan, M. 2006. "Self-Accountability Emotions and Fear Appeals: Motivating Behavior", *Journal of Consumer Research*, 32 (4), 583-589.

Pavia, T. M., and Mason, M. J. 2004. "The Reflexive Relationship between Consumer Behavior and Adaptive Coping", *Journal of Consumer Research*, 31(2), 441-454.

Payne, J. W., Bettman, J. R., and Johnson, E. J. 1993. *The Adaptive Decision Maker*. Cambridge: Cambridge University Press.

Pearlin, L. I. 1989. "The Sociological Study of Stress", *Journal of Health and Social Behavior*, 30 (3), 241-256.

Pedhazur, E. J. 1997. *Multiple Regressions in Behavioral Research: Explanation and Prediction*. Orlando: Harcourt Brace.

Pedhazur, E. J., and Schmelkin, L. P. 1991. *Measurement, Design, and Analysis: An Integrated Approach*. New Jersey: Lawrence Erlbaum Associates.

Peduzzi, P., Concato, J., Kemper, E., Holford, T. R., and Feinstein, A. R. 1996. "A Simulation Study of the Number of Events per Variable in Logistic Regression Analysis", *Journal of Clinical Epidemiology*, 49 (12), 1373-1379.

Perdue, B. C., and Summers, J. O. 1986. "Checking the Success of Manipulations in Marketing Experiments", *Journal of Marketing Research*, 23 (4), 317-326.

Rahman, N. 1996. "Caregivers' Sensitivity to Conflict: The Use of Vignette Methodology", *Journal of Elder Abuse and Neglect*, 8 (1), 35-47.

Rathneswar, S., Pechman, C., and Shocker, A. D. 1996. "Goal-Derived Categories and the Antecedents of Across-Category Consideration", *Journal of Consumer Research*, 23 (3), 240-250.

Rathneswar, S., and Shocker, A. D. 1991. "Substitution in Use and the Role of Usage Context in Product Category Structures", *Journal of Marketing Research*, 28 (3), 281-295.

Richins, M. L. 1997. "Measuring Emotions in the Consumption Experience", *Journal of Consumer Research*, 24 (2), 127-146.

Rips, L. J., Shoben, E. J., and Smith, E. E. 1973. "Semantic Distance and the Verification of Semantic Relations", *Journal of Verbal Learning and Verbal Behavior*, 12 (1), 1-20.

Rosch, R. 1978. "Principles of Categorization", in *Cognition and Categorization*, Eleanor Rosch and Barbara Bloom Lloyd (Eds.), Hillsdale, NJ: Lawrence Erlbaum Associates, 27-48.

Rosch, E., and Mervis, C. 1975. "Family Resemblances: Studies in the Internal Structure of Categories", *Cognitive Psychology*, 7 (4), 573-605.

Ross, B. H., and Gregory L. Murphy. 1999. "Food for Thought: Cross-Classification and Category Organization in a Complex Real-World Domain", *Cognitive Psychology*, 38 (4), 495-553.

Rothermund, K., Voss, A., and Wentura, D. 2008. "Counter-Regulation in Affective Attentional Bias: A Basic Mechanism that Warrants Flexibility in Motivation and Emotion", *Emotion*, 8 (1), 34-46.

Sawyer, A. G., Lynch, J. G., and Brinberg, D. L. 1995. "A Bayesian Analysis of the Information Value of Manipulation and Confounding Checks in Theory Tests", *Journal of Consumer Research*, 21 (4), 581-595.

Schmitt, B. 1999. "Experiential Marketing", *Journal of Marketing Management*, 15 (1), 53-67.

Schoefer K., and Ennew C. 2005. "The Impact of Perceived Justice on Consumers' Emotional Responses to Service Complaint Experiences", *Journal of Services Marketing*, 19 (5), 261-270.

Sela, A., Berger, J., and Liu, W. 2009. "Variety, Vice And Virtue: How Assortment Size Influences Option Choice", *Journal of Consumer Research*, 35 (6), 941-951.

Shafir, E. Simonson, I., and Tversky, A. 1993. "Reason-Based Choice", *Cognition*, 49 (1-2), 11-36.

Siegel, S., 1957. "Nonparametric Statistics", *American Statistician*, 11 (3), 13-19.

Smith, E. E., Shoben, E. J., and Rips, L. J. 1974. "Structure and Process in Semantic Memory: A Featural Model for Semantic Decisions", *Psychological Review*, 81 (3), 214-241.

Soman D., and Cheema, A. 2004. "When Goals are Counterproductive: The Effects of Violation of a Behavioral Goal on Subsequent Performance", *Journal of Consumer Research*, 31 (1), 52-62.

Sørensen, J. 2008. "Measuring Emotions in a Consumer Decision-Making Context – Approaching or Avoiding", Working Paper Series, Department of Business Studies, Aalborg University Press.

Sundaram, D. S., and Webster, C. 1999. "The Role of Brand Familiarity on the Impact of Word-Of-Mouth Communication on Brand Evaluations", in *Advances in Consumer Research*, Eric J. Arnould and Linda M. Scott (Eds.), Provo, UT: Association for Consumer Research, 26, 664-670.

Sujan, M., Sujan, H., Bettman, J. R., and Verhallen, T. M. M. 1999. "Sources of Consumers' Stress and their Coping Strategies", in *European Advances in Consumer Research*, Bernard Dubois, Tina M. Lowrey, L. J. Shrum, and Marc Vanhuele (Eds.), Provo, UT: Association for Consumer Research, 4, 182-187.

Tausig, M. (1982). "Measuring Life Events", *Journal of Health and Social Behavior*, 23 (1), 52–64.

Thoits, P. A. 1995. "Stress, Coping, and Social Support Processes: Where are we? What Next?," *Journal of Health and Social Behavior*, 35, 53–79.

Thompson, D. V., Hamilton, R. W., and Petrova, P. K. 2009. "When Mental Simulation Hinders Behavior: The Effects of Process-Oriented Thinking on Decision Difficulty and Performance", *Journal of Consumer Research*, 36 (4), 562-574.

Tversky, A. 1977. "Features of Similarity", *Psychological Review*, 84 (4), 327-352.

Tversky, A., and Shafir, E. 1992. "Choice Under Conflict: The Dynamics of Deferred Decision," *Psychological Science*, 3 (6), 358–61.

Vallée-Tourangeau, F., Anthony, S. H., and Austin, N. G. 1998. "Strategies for Generating Multiple Instances of Common and Ad Hoc Categories", *Memory*, 6 (5), 555-592.

Viswanathan, M. 2005. *Measurement Error and Research Design*. California: Sage Publications.

Viswanathan, M., Rosa, J. A., and Harris, J. E. 2005. "Decision Making and Coping of Functionally Illiterate Consumers", *Journal of Marketing*, 69 (1), 15–31.

Vohs, K. D., and Hetaherton, T. F. 2000. "Self-Regulation Failure: A Resource-Depletion Approach", *Psychological Science*, 11 (3), 249-254.

Wang, J., Novemsky, N., Dhar, R., and Baumeister, R. F. 2010. "Trade-Offs and Depletion in Choice", *Journal of Marketing Research*, 47 (5), 910-919.

Webster, C., and Sundaram, D. S. 1998. "Service Consumption Criticality in Failure Recovery", *Journal of Business Research*, 41 (2), 153-159.

Wheaton, B. 1990. "Life Transitions, Role Histories, and Mental Health", *American Sociological Review*, 55 (2), 209-223.

Williams, P., and Aaker, J. L. 2002. "Can Mixed Emotions Peacefully Coexist?", *Journal of Consumer Research*, 28 (4), 636-649.

APPENDIX I: STUDY I QUESTIONNAIRE EXAMPLE

Sayın Katılımcı,

Bu araştırma tüketici kararlarını ve bu kararların tüketicilerde yarattığı duyguları anlamak amacıyla yürütülen akademik bir çalışmadır. Bu mektubun beraberinde kısa bir senaryo ve sorular bulunmaktadır. Lütfen önce senaryoyu okuyunuz, ve daha sonra okuduğunuz senaryoyu dikkate alarak ilgili soruları yanıtlayınız. Bu çalışma kişisel tercih ve görüşleriniz ile ilgilidir. Dolayısıyla, sorulara “doğru” ya da “yanlış” cevap vermeniz söz konusu değildir.

Bu testin sonuçları bir doktora tez çalışmasında kullanılacaktır. Kişisel cevaplar değil örneklemden alınan kümülatif cevaplar önem taşımaktadır. Bu nedenle kimlik bilgilerinizi belirtmenize gerek yoktur. Bu araştırmaya katılmanız sizin için herhangi bir risk taşımamakta olup cevaplarınızın tümü gizli tutulacaktır.

Bu testi tamamlamak ortalama olarak 5 dakikanızı almaktadır. Katılımınız tamamen gönüllülük esasına dayanmaktadır. Katılımınız durumunda yapacağınız değerli katkılardan dolayı çok teşekkür ederim.

Saygılarımla,

Tuğba Örten Tuğrul
İzmir Ekonomi Üniversitesi
İşletme Bölümü
Doktora Öğrencisi

Lütfen öncelikle aşağıdaki hikayeyi okuyunuz ve daha sonra soruları cevaplayınız.

Farz edin ki Bay A hafta sonları sıklıkla akşam yemeğini dışarıda yer, ve genellikle yemeğini bir tatlı ile bitirir. Yiyecekler söz konusu olduğunda, Bay A yediği şeyin sağlıklı olmasına lezzetli olmasına kıyasla çok daha fazla önem verir. Bay A'nın güzel bir restorana gittiği bir anı düşünersek; menüdeki yiyecekler lezzetli fakat çok yağlı olanlardan (örneğin, pizza, kremalı makarna, çikolatalı pasta ve baklava) az yağlı fakat daha az lezzetli onlara kadar çeşitlilik göstermektedir (örneğin, sebze yemekleri, az yağlı makarna, diyet dondurma ve taze meyve salatası).

1. Bay A ana yemek için büyük olasılıkla aşağıdaki alternatiflerden hangisini seçer?

- Alternatif 1: Lezzetli fakat sağlıksız bir yemek
 Alternatif 2: Sağlıklı fakat daha az lezzetli bir yemek

2. Bay A bu kararı verirken kendini stres altında hisseder.

Tamamen katılıyorum	Kısmen katılıyorum	Ne katılıyorum	Ne katılmıyorum	Kısmen katılmıyorum	Tamamen katılmıyorum
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Bay A ana yemekten sonra tatlı için büyük olasılıkla aşağıdaki alternatiflerden hangisini seçer?

- Alternatif 1: Lezzetli fakat yağlı bir tatlı
 Alternatif 2: Daha az yağlı fakat daha az lezzetli bir tatlı

Demografik Bilgileriniz

1. Cinsiyetiniz nedir?

Kadın

Erkek

2. Kaç yaşındasınız? _____

3. Bitirdiğiniz son okul aşağıdakilerden hangisidir? (Eğer halen bir okula devam etmekte iseniz, lütfen yine son bitirdiğiniz okulu işaretleyiniz)

İlkokul

Ortaokul

Lise

Lisans

Lisansüstü

4. Aylık gelir seviyeniz nedir? (TL olarak)

1000 ve altı

1001-2000

2001-3000

3001 ve üstü

Katılımınız için çok teşekkür ederim.

APPENDIX II: STUDY II QUESTIONNAIRE EXAMPLES

QUESTIONNAIRE EXAMPLE I

Lütfen öncelikle aşağıdaki hikayeyi okuyunuz ve daha sonra soruları cevaplayınız.

Farz edin ki Bay A hafta sonları sıklıkla vaktini dışarıda geçirir. Genellikle akşam yemeği için bir restorana gider, ve yemekten sonra da bazen birşeyler içmek için bir kafeye gider. Bay A vaktini dışarı geçirdiği günlerde, hem tasarruf yapmaya hem de o anın keyfini çıkarmaya önem verir. Bay A'nın bu hafta sonu için planlarını düşünürsek, yemek için özel lezzetlerin sunulduğu, pahalı bir restorana veya standart yemeklerin sunulduğu uygun fiyatlara sahip bir restorana gidebilir. Bir şeyler içmek içinse, sıradan ve hesaplı içeceklerin olduğu bir kafeye veya ithal ve yüksek fiyatlardan satılan içeceklerin olduğu bir kafeye gidebilir.

1. Bay A yemek için büyük olasılıkla aşağıdaki restoran alternatiflerinden hangisini seçer?

Alternatif 1: Lezzetli, özel yemeklerin sunulduğu pahalı restoran

Alternatif 2: Daha az lezzetli, standart yemeklerin sunulduğu uygun fiyatlı restoran

2. Bay A bu kararı verirken kendini stres altında hisseder.

Tamamen katılıyorum	Katılıyorum	Kısmen katılıyorum	Ne katılıyorum ne katılmıyorum	Kısmen katılmıyorum	Katılmıyorum	Tamamen katılmıyorum
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Bay A restoranda yemek yedikten sonra birşeyler içmeye gitmek için büyük olasılıkla aşağıdaki kafe alternatiflerinden hangisini seçer?

Alternatif 1: Özel, ithal ve pahalı içeceklerin olduğu bir kafe

Alternatif 2: Sıradan ve ucuz içeceklerin olduğu bir kafe

QUESTIONNAIRE EXAMPLE II

Lütfen öncelikle aşağıdaki hikayeyi okuyunuz ve daha sonra soruları cevaplayınız.

Farz edin ki Bay A hafta sonları sıklıkla vaktini dışarıda geçirir. Genellikle akşam yemeği için bir restorana gider, ve bazen de yemekten sonra tiyatroya gider. Bay A vaktini dışarı geçirdiği günlerde, tasarruf yapmaya o anın keyfini çıkarmaya kıyasla çok daha fazla önem verir. Bay A'nın bu hafta sonu için planlarını düşünürsek, yemek için özel lezzetlerin sunulduğu, pahalı bir restorana veya standart yemeklerin sunulduğu uygun fiyatlara sahip bir restorana gidebilir. Tiyatro oyunu içinse, bu yılın en iyi oyunlarından biri olarak tanımlanan ve biletleri yüksek fiyatlardan satılan bir oyuna veya olumlu eleştirilerin yanında olumsuz eleştiriler de alan ve biletleri daha uygun fiyatlardan satılan bir oyuna gidebilir.

1. Bay A yemek için büyük olasılıkla aşağıdaki restoran alternatiflerinden hangisini seçer?

Alternatif 1: Lezzetli , özel lezzetlerin sunulduğu pahalı restoran

Alternatif 2: Daha az lezzetli, standart yemeklerin sunulduğu uygun fiyatlı restoran

2. Bay A bu kararı verirken kendini stres altında hisseder.

Tamamen katılıyorum	Kısmen katılıyorum	Ne katılıyorum ne katılmıyorum	Kısmen katılmıyorum	Tamamen katılmıyorum
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Bay A restoranda yemek yedikten sonra tiyatrodaki izlemek için büyük olasılıkla aşağıdaki oyun alternatiflerinden hangisini seçer?

Alternatif 1: Bu yılın en iyi oyunlarından biri olarak tanımlanan ve biletleri yüksek fiyatlardan satılan oyun

Alternatif 2: Hem iyi hem de kötü eleştiriler alan ve biletleri uygun fiyatlardan satılan oyun

APPENDIX III: PRETEST I QUESTIONNAIRE EXAMPLE

Sayın Katılımcı,

Bu araştırma tüketici kararlarını ve bu kararların tüketicilerde yarattığı duyguları anlamak amacıyla yürütülen akademik bir çalışmadır. Bu mektubun beraberinde kısa bir senaryo ve sorular bulunmaktadır. Lütfen önce senaryoyu okuyunuz, ve daha sonra okuduğunuz senaryoyu dikkate alarak ilgili soruları yanıtlayınız. Bu çalışma kişisel tercih ve görüşleriniz ile ilgilidir. Dolayısıyla, sorulara “doğru” ya da “yanlış” cevap vermeniz söz konusu değildir.

Bu öntestin sonuçları bir doktora tez çalışmasında kullanılacaktır. Kişisel cevaplar değil örneklemeden alınan kümülatif cevaplar önem taşımaktadır. Bu nedenle kimlik bilgilerinizi belirtmenize gerek yoktur. Bu araştırmaya katılmanız sizin için herhangi bir risk taşımamakta olup cevaplarınızın tümü gizli tutulacaktır.

Bu testi tamamlamak ortalama olarak 2 dakikanızı almaktadır. Katılımınız tamamen gönüllülük esasına dayanmaktadır. Katılımınız durumunda yapacağınız değerli katkılardan dolayı çok teşekkür ederim.

Saygılarımla,

Tuğba Örten Tuğrul
İzmir Ekonomi Üniversitesi
İşletme Bölümü
Doktora Öğrencisi

Lütfen öncelikle aşağıdaki hikayeyi okuyunuz ve daha sonra soruları cevaplayınız.

Farz edin ki Bay A hafta sonları sıklıkla akşam yemeğini dışarıda yer, ve genellikle yemeğini bir tatlı ile bitirir. Yiyecekler söz konusu olduğunda, Bay A yediği şeyin sağlıklı olmasına lezzetli olmasına kıyasla çok daha fazla önem verir. Bay A'nın güzel bir restorana gittiği bir anı düşünürsek; menüdeki yiyecekler lezzetli fakat çok yağlı olanlardan (örneğin, pizza, kremalı makarna, çikolatalı pasta ve baklava) az yağlı fakat daha az lezzetli onlara kadar çeşitlilik göstermektedir (örneğin, sebze yemekleri, az yağlı makarna, diyet dondurma ve taze meyve salatası).

Alternatif 1: Lezzetli fakat sağlıksız bir yemek

Alternatif 2: Sağlıklı fakat daha az lezzetli bir yemek

1. Bay A için ana yemek alternatiflerinden hangisini seçeceğine karar vermek ne derece zordur?

Hiç zor değil	Zor değil	Kısmen zor değil	Ne zor ne zor değil	Kısmen zor	Zor	Oldukça zor
1	2	3	4	5	6	7

2. Bay A vereceği bu karardan ne kadar emin olur?

Hiç emin değil	Emin değil	Kısmen emin değil	Ne emin ne emin değil	Kısmen emin	Emin	Oldukça emin
1	2	3	4	5	6	7

3. Gerçek hayatta böyle olayların gerçekleşebileceğine inanıyorum.

Tamamen katılıyorum	Kısmen katılıyorum	Ne katılıyorum ne katılmıyorum	Kısmen katılmıyorum	Tamamen katılmıyorum
[]	[]	[]	[]	[]

Lütfen okduğunuz senaryo ile ilgili herhangi bir eleştiriniz, öneriniz veya fikriniz var ise paylaşınız.

Katılımınız için çok teşekkür ederim.

APPENDIX IV: PRETEST II QUESTIONNAIRE EXAMPLE

Lütfen öncelikle aşağıdaki hikayeyi okuyunuz ve daha sonra soruları cevaplayınız.

Farz edin ki Bay A hafta sonları sıklıkla vaktini dışarıda geçirir. Genellikle akşam yemeği için bir restorana gider, ve bazen de yemekten sonra tiyatroya gider. Bay A vaktini dışarı geçirdiği günlerde, tasarruf yapmaya o anın keyfini çıkarmaya kıyasla çok daha fazla önem verir. Bay A'nın bu hafta sonu için planlarını düşünürsek, yemek için özel lezzetlerin sunulduğu, pahalı bir restorana veya standart yemeklerin sunulduğu uygun fiyatlara sahip bir restorana gidebilir. Bir şeyler içmek içinse, sıradan ve hesaplı içeceklerin olduğu bir kafeye veya ithal ve yüksek fiyatlardan satılan içeceklerin olduğu bir kafeye gidebilir.

Alternatif 1: Lezzetli, özel yemeklerin bulunduğu pahalı restoran

Alternatif 2: Daha az lezzetli, standart yemeklerin bulunduğu makul fiyatlı restoran

1. Bay A için restoran alternatiflerinden hangisini seçeceğine karar vermek ne derece zordur?

Hiç zor değil	Zor değil	Kısmen zor değil	Ne zor ne zor değil	Kısmen zor	Zor	Oldukça zor
1	2	3	4	5	6	7

2. Bay A vereceği bu karardan ne kadar emin olur?

Hiç emin değil	Emin değil	Kısmen emin değil	Ne emin ne emin değil	Kısmen emin	Emin	Oldukça emin
1	2	3	4	5	6	7

Bay A, restoranda yemek yedikten sonra birşeyler içmeye gitmek içinse aşağıdaki kafe alternatiflerinden birisini seçecektir.

Alternatif 1: Özel, ithal ve pahalı içeceklerin olduğu bir kafe

Alternatif 2: Sıradan ve pahalı içeceklerin olduğu bir kafe

4. Bay A'nın restoran seçiminden sonra yapacağı kafe seçimi "tassarruf yapma hedefine yönelik seçimlerin oluşturduğu tercihler kategorisine" aittir.

Tamamen katılıyorum	Katılıyorum	Kısmen katılıyorum	Ne katılıyorum ne katılmıyorum	Kısmen katılmıyorum	Katılmıyorum	Tamamen katılmıyorum
[]	[]	[]	[]	[]	[]	[]

5. Bay A'nın yapacağı kafe seçimi "tassarruf yapma hedefine yönelik seçimlerin oluşturduğu tercihler kategorisinin" ne derece iyi bir örneğidir?

Kategorinin en iyi örneği			Nötr			Kategorinin en kötü örneği
1	2	3	4	5	6	7

6. Gerçek hayatta böyle olayların gerçekleşebileceğine inanıyorum.

Tamamen katılıyorum	Katılıyorum	Kısmen katılıyorum	Ne katılıyorum ne katılmıyorum	Kısmen katılmıyorum	Katılmıyorum	Tamamen katılmıyorum
[]	[]	[]	[]	[]	[]	[]

Lütfen okduğunuz senaryo ile ilgili herhangi bir eleştiriniz, öneriniz veya fikriniz var ise paylaşınız.

Katılımınız için çok teşekkür ederim.

APPENDIX V: DETAILED STATISTICS FOR SAMPLE I

Gender * Group Crosstab

			Group		Total
			High Tradeoff Difficulty	Low Tradeoff Difficulty	
Gender	Female	Count	24	28	52
		% within Gender	46,2%	53,8%	100,0%
	Male	Count	40	36	76
		% within Gender	52,6%	47,4%	100,0%
Total		Count	64	64	128
		% within Gender	50,0%	50,0%	100,0%

Gender * Group Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	,518 ^a	1	,472		
Continuity Correction ^b	,291	1	,589		
Likelihood Ratio	,519	1	,471		
Fisher's Exact Test				,589	,295
Linear-by-Linear Association	,514	1	,473		
N of Valid Cases	128				

a. 0 cells (,0%) have expected count less than 5. The minimum expected count is 26,00.

b. Computed only for a 2x2 table

Age * Group Crosstab

			Group		Total
			high tradeoff difficulty	low tradeoff difficulty	
Age	24 and below	Count	3	8	11
		% within Age	27,3%	72,7%	100,0%
	25-34	Count	28	26	54
		% within Age	51,9%	48,1%	100,0%
	35-44	Count	15	18	33
		% within Age	45,5%	54,5%	100,0%
	45-54	Count	14	9	23
		% within Age	60,9%	39,1%	100,0%
	55 and above	Count	4	3	7
		% within Age	57,1%	42,9%	100,0%
Total		Count	64	64	128
		% within Age	50,0%	50,0%	100,0%

Age * Group Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3,849 ^a	4	,427
Likelihood Ratio	3,945	4	,414
Linear-by-Linear Association	1,628	1	,202
N of Valid Cases	128		

a. 2 cells (20,0%) have expected count less than 5. The minimum expected count is 3,50.

Education * Group Crosstab

			Group		Total
			High Tradeoff Difficulty	Low Tradeoff Difficulty	
Education	Elementary school	Count	10	7	17
		% within Education	58,8%	41,2%	100,0%
	High school	Count	5	5	10
		% within Education	50,0%	50,0%	100,0%
	College	Count	16	13	29
		% within Education	55,2%	44,8%	100,0%
	Undergraduate	Count	30	32	62
		% within Education	48,4%	51,6%	100,0%
	Graduate	Count	3	7	10
		% within Education	30,0%	70,0%	100,0%
Total		Count	64	64	128
		% within Education	50,0%	50,0%	100,0%

Education * Group Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2,504 ^a	4	,644
Likelihood Ratio	2,553	4	,635
Linear-by-Linear Association	1,505	1	,220
N of Valid Cases	128		

a. 0 cells (,0%) have expected count less than 5. The minimum expected count is 5,00.

Income * Group Crosstab

			Group		Total
			High Tradeoff Difficulty	Low Tradeoff Difficulty	
Income	1000 and below	Count	27	28	55
		% within Income	49,1%	50,9%	100,0%
	1001-2000	Count	25	18	43
		% within Income	58,1%	41,9%	100,0%
	2001-3000	Count	7	13	20
		% within Income	35,0%	65,0%	100,0%
	3001 and above	Count	5	5	10
		% within Income	50,0%	50,0%	100,0%
Total		Count	64	64	128
		% within Income	50,0%	50,0%	100,0%

Income * Group Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2,958 ^a	3	,398
Likelihood Ratio	2,991	3	,393
Linear-by-Linear Association	,219	1	,640
N of Valid Cases	128		

a. 0 cells (,0%) have expected count less than 5. The minimum expected count is 5,00.

APPENDIX VI: DETAILED STATISTICS FOR SAMPLE II

Gender * Group Crosstab

			Group		Total
			High Tradeoff Difficulty	Low Tradeoff Difficulty	
Gender	Female	Count	32	33	65
		% within Gender	49,2%	50,8%	100,0%
	Male	Count	36	35	71
		% within Gender	50,7%	49,3%	100,0%
Total		Count	68	68	136
		% within Gender	50,0%	50,0%	100,0%

Gender * Group Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	,029 ^a	1	,864		
Continuity Correction ^b	,000	1	1,000		
Likelihood Ratio	,029	1	,864		
Fisher's Exact Test				1,000	,500
Linear-by-Linear Association	,029	1	,864		
N of Valid Cases	136				

a. 0 cells (,0%) have expected count less than 5. The minimum expected count is 32,50.

b. Computed only for a 2x2 table

Age * Group Crosstab

			Group		Total
			High Tradeoff Difficulty	Low Tradeoff Difficulty	
Age	24 and below	Count	10	12	22
		% within Age	45,5%	54,5%	100,0%
	25-34	Count	19	19	38
		% within Age	50,0%	50,0%	100,0%
	35-44	Count	13	17	30
		% within Age	43,3%	56,7%	100,0%
	45-54	Count	15	10	25
		% within Age	60,0%	40,0%	100,0%
	55 and above	Count	11	10	21
		% within Age	52,4%	47,6%	100,0%
Total		Count	68	68	136
		% within Age	50,0%	50,0%	100,0%

Age * Group Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1,763 ^a	4	,779
Likelihood Ratio	1,771	4	,778
Linear-by-Linear Association	,515	1	,473
N of Valid Cases	136		

a. 0 cells (,0%) have expected count less than 5. The minimum expected count is 10,50.

Education * Group Crosstab

			Group		Total
			High Tradeoff Difficulty	Low Tradeoff Difficulty	
Education	elementary school	Count	11	13	24
		% within Education	45,8%	54,2%	100,0%
	high school	Count	10	10	20
		% within Education	50,0%	50,0%	100,0%
	college	Count	14	13	27
		% within Education	51,9%	48,1%	100,0%
	Undergraduate	Count	23	22	45
		% within Education	51,1%	48,9%	100,0%
	Graduate	Count	10	10	20
		% within Education	50,0%	50,0%	100,0%
Total		Count	68	68	136
		% within Education	50,0%	50,0%	100,0%

Education * Group Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	,226 ^a	4	,994
Likelihood Ratio	,226	4	,994
Linear-by-Linear Association	,104	1	,747
N of Valid Cases	136		

a. 0 cells (,0%) have expected count less than 5. The minimum expected count is 10,00.

Income * Group Crosstab

			Group		Total
			High Tradeoff Difficulty	Low Tradeoff Difficulty	
Income	1000 and below	Count	26	26	52
		% within Income	50,0%	50,0%	100,0%
	1001-2000	Count	22	17	39
		% within Income	56,4%	43,6%	100,0%
	2001-3000	Count	10	15	25
		% within Income	40,0%	60,0%	100,0%
	3001 and above	Count	10	10	20
		% within Income	50,0%	50,0%	100,0%
Total	Count		68	68	136
	% within Income		50,0%	50,0%	100,0%

Income * Group Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1,641 ^a	3	,650
Likelihood Ratio	1,650	3	,648
Linear-by-Linear Association	,159	1	,690
N of Valid Cases	136		

a. 0 cells (,0%) have expected count less than 5. The minimum expected count is 10,00.

Gender * Typicality Crosstab

			Typicality		Total
			High Typicality	Low Typicality	
Gender	Female	Count	35	30	65
		% within Gender	53,8%	46,2%	100,0%
	Male	Count	33	38	71
		% within Gender	46,5%	53,5%	100,0%
Total		Count	68	68	136
		% within Gender	50,0%	50,0%	100,0%

Gender * Typicality Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	,737 ^a	1	,391		
Continuity Correction ^b	,472	1	,492		
Likelihood Ratio	,737	1	,390		
Fisher's Exact Test				,492	,246
Linear-by-Linear Association	,731	1	,392		
N of Valid Cases	136				

a. 0 cells (,0%) have expected count less than 5. The minimum expected count is 32,50.

b. Computed only for a 2x2 table

Age * Typicality Crosstab

			Typicality		Total
			High Typicality	Low Typicality	
Age	24 and below	Count	11	11	22
		% within Age	50,0%	50,0%	100,0%
	25-34	Count	18	20	38
		% within Age	47,4%	52,6%	100,0%
	35-44	Count	16	14	30
		% within Age	53,3%	46,7%	100,0%
	45-54	Count	13	12	25
		% within Age	52,0%	48,0%	100,0%
	55 and above	Count	10	11	21
		% within Age	47,6%	52,4%	100,0%
Total		Count	68	68	136
		% within Age	50,0%	50,0%	100,0%

Age * Typicality Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	,326 ^a	4	,988
Likelihood Ratio	,326	4	,988
Linear-by-Linear Association	,004	1	,948
N of Valid Cases	136		

a. 0 cells (,0%) have expected count less than 5. The minimum expected count is 10,50.

Education * Typicality Crosstab

			Typicality		Total
			High Typicality	Low Typicality	
Education	elementary school	Count	13	11	24
		% within Education	54,2%	45,8%	100,0%
	high school	Count	10	10	20
		% within Education	50,0%	50,0%	100,0%
	college	Count	11	16	27
		% within Education	40,7%	59,3%	100,0%
	undergraduate	Count	24	21	45
		% within Education	53,3%	46,7%	100,0%
	graduate	Count	10	10	20
		% within Education	50,0%	50,0%	100,0%
Total		Count	68	68	136
		% within Education	50,0%	50,0%	100,0%

Education * Typicality Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1,293 ^a	4	,863
Likelihood Ratio	1,298	4	,862
Linear-by-Linear Association	,004	1	,949
N of Valid Cases	136		

a. 0 cells (,0%) have expected count less than 5. The minimum expected count is 10,00.

Income * Typicality Crosstab

			Typicality		Total
			High Typicality	Low Typicality	
Income	1000 and below	Count	30	22	52
		% within Income	57,7%	42,3%	100,0%
	1001-2000	Count	18	21	39
		% within Income	46,2%	53,8%	100,0%
	2001-3000	Count	10	15	25
		% within Income	40,0%	60,0%	100,0%
	3001 and above	Count	10	10	20
		% within Income	50,0%	50,0%	100,0%
Total		Count	68	68	136
		% within Income	50,0%	50,0%	100,0%

Income * Typicality Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2,462 ^a	3	,482
Likelihood Ratio	2,473	3	,480
Linear-by-Linear Association	1,077	1	,299
N of Valid Cases	136		

a. 0 cells (,0%) have expected count less than 5. The minimum expected count is 10,00.

Gender * Trade-off Difficulty & Typicality Crosstab

			Trade-off Difficulty & Typicality				Total
			HTD-HT	HTD-LT	LTD-HT	LTD-LT	
Gender	Female	Count	17	15	18	15	65
		% within Gender	26,2%	23,1%	27,7%	23,1%	100,0%
	Male	Count	17	19	16	19	71
		% within Gender	23,9%	26,8%	22,5%	26,8%	100,0%
Total	Count		34	34	34	34	136
	% within Gender		25,0%	25,0%	25,0%	25,0%	100,0%

Gender * Trade-off Difficulty & Typicality Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	,796 ^a	3	,851
Likelihood Ratio	,796	3	,850
Linear-by-Linear Association	,053	1	,819
N of Valid Cases	136		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 16,25.

Age * Gender * Trade-off Difficulty & Typicality Crosstab

			Trade-off Difficulty & Typicality				Total
			HTD-HT	HTD-LT	LTD-HT	LTD-LT	
Age	24 and below	Count	5	5	6	6	22
		% within Age	22,7%	22,7%	27,3%	27,3%	100,0%
	25-34	Count	8	11	10	9	38
		% within Age	21,1%	28,9%	26,3%	23,7%	100,0%
	35-44	Count	8	5	8	9	30
		% within Age	26,7%	16,7%	26,7%	30,0%	100,0%
	45-54	Count	8	7	5	5	25
		% within Age	32,0%	28,0%	20,0%	20,0%	100,0%
	55 and above	Count	5	6	5	5	21
		% within Age	23,8%	28,6%	23,8%	23,8%	100,0%
Total	Count		34	34	34	34	136
	% within Age		25,0%	25,0%	25,0%	25,0%	100,0%

Age * Gender * Trade-off Difficulty & Typicality Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3,131 ^a	12	,995
Likelihood Ratio	3,215	12	,994
Linear-by-Linear Association	,450	1	,502
N of Valid Cases	136		

a. 0 cells (,0%) have expected count less than 5. The minimum expected count is 5,25.

Education * Trade-off Difficulty & Typicality Crosstab

		Trade-off Difficulty & Typicality				Total
		HTD-HT	HTD-LT	LTD-HT	LTD-LT	
Education elementary school	Count	5	6	8	5	24
	% within Education	20,8%	25,0%	33,3%	20,8%	100,0%
high school	Count	5	5	5	5	20
	% within Education	25,0%	25,0%	25,0%	25,0%	100,0%
college	Count	5	9	6	7	27
	% within Education	18,5%	33,3%	22,2%	25,9%	100,0%
undergraduate	Count	14	9	10	12	45
	% within Education	31,1%	20,0%	22,2%	26,7%	100,0%
graduate	Count	5	5	5	5	20
	% within Education	25,0%	25,0%	25,0%	25,0%	100,0%
Total	Count	34	34	34	34	136
	% within Education	25,0%	25,0%	25,0%	25,0%	100,0%

Education * Trade-off Difficulty & Typicality Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3,607 ^a	12	,990
Likelihood Ratio	3,529	12	,991
Linear-by-Linear Association	,067	1	,795
N of Valid Cases	136		

a. 0 cells (,0%) have expected count less than 5. The minimum expected count is 5,00.

Income * Trade-off Difficulty & Typicality Crosstab

		Trade-off Difficulty & Typicality				Total	
		HTD-HT	HTD-LT	LTD-HT	LTD-LT		
Income	1000 and below	Count	15	11	15	11	52
		% within Income	28,8%	21,2%	28,8%	21,2%	100,0%
	1001-2000	Count	9	13	9	8	39
		% within Income	23,1%	33,3%	23,1%	20,5%	100,0%
	2001-3000	Count	5	5	5	10	25
		% within Income	20,0%	20,0%	20,0%	40,0%	100,0%
	3001 and above	Count	5	5	5	5	20
		% within Income	25,0%	25,0%	25,0%	25,0%	100,0%
Total		Count	34	34	34	34	136
		% within Income	25,0%	25,0%	25,0%	25,0%	100,0%

Income * Trade-off Difficulty & Typicality Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5,744 ^a	9	,765
Likelihood Ratio	5,374	9	,801
Linear-by-Linear Association	,674	1	,412
N of Valid Cases	136		

a. 0 cells (,0%) have expected count less than 5. The minimum expected count is 5,00.

VITA

Tuğba Tuğrul was born in Izmir on June 9, 1981. She received her Bachelor Degree in Business Administration from Yeditepe University, Turkey, in 2005 as a valedictorian. She started her PhD in the Department of Business Administration, in a major field of Marketing in Izmir University of Economics in 2005. She was a visiting scholar at University of Texas Pan-American, in Business College in 2008 for starting her PhD research. Concurrently, she began to work as a research assistant in the Department of Business Administration. Since 2008, she has been working as an instructor in the same department. Her interest areas include consumer goals and choices, sustainable consumption, social welfare chain and societal marketing.