Modeling Spousal Family Purchase Decision Behavior: A Dynamic Simultaneous Equations Approach

Chenting Su

Dissertation submitted to the Faculty of the
Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements for the degree of

Doctor of Philosophy
in
Marketing

Edward F. Fern, Co-Chair
Keying Ye, Co-Chair
David Brinberg
James E. Littlefield
M. Joseph Sirgy

August 10, 1999
Blacksburg, Virginia

Keywords: Spousal Decision Behavior, Behavioral Interaction, Relative Influence, Dynamic Simultaneous Equations

Modeling Spousal Family Purchase Decision Behavior:
A Dynamic Simultaneous Equations Approach

Chenting Su

(ABSTRACT)

This dissertation represented an initial effort to model spousal family purchase decision behavior in terms of spousal coercion propensity. Two major issues concerning how spouses resolve conflicts were investigated: (1) What are the spousal *behavioral interactions* in household conflict resolution processes? (2) What are the temporal aspects of spousal family decision behaviors? It was hypothesized that spouses tend to not reciprocate their partners' uses of coercive influence strategies in a decision, given their avoidance of conflict. Also, spouses who used more power in the past tend to use less power in order to maintain equity in the long-term marital relationship. It was also hypothesized that spousal coercion propensity are contingent upon marital power, love, and preference intensity. Marital power and preference intensity are positively related to spousal coercion propensity while love predicts weaker coercive decision behavior. Consistently, it was proposed that coercive influence strategies are more effective in the short run, given the spouses' conflict avoidance and sense of equity in marriage. Thus, spouses who used coercive strategies are more satisfied with the decision outcome but less satisfied with the decision process.

A dynamic simultaneous equations model (DSE) was developed to test the major hypotheses of this dissertation. The model was calibrated by means of an Autoregressive Two-Stage Least Square (A2SLS) approach. MANOVAs and a set of binary logistic regressions and linear multiple regressions were used to test the other hypotheses. The empirical study involving a random sample provided adequate support for the model. The implications of the findings, theoretical and managerial alike, limitations of the study, and future research directions were discussed.

DEDICATION

TO MY MOTHER
MRS SHIRLEY WAN
WHOSE UNSEEN PRESENCE GUIDES ME

Acknowledgements

I would like to express my deep appreciation to the members of my advisory committee. The timely suggestions given, the scholarly guidance provided, and the genuine interest shown, by the chairman of my advisory committee, Dr. Edward, F. Fern, have been inspiring to say the least. More importantly, he has always shown a human face. To him I would express, in the parlance of my nation, "the humblest gratitude."

I thank Dr. Keying Ye, a mathematician from the Department of Statistics. He has co-chaired this dissertation and his talents and expertise in his area have been very illuminating.

I thank Dr. David Brinberg, Dr. James E. Littlefield, and Dr. M. Joseph Sirgy whose reputation and expertise in this discipline have encouraged and guided me through the process. I consider it my fortune to have had such a strong advisory committee.

I would also like to express my gratitude to Dr. Noreen Klein and my colleagues Dr. Carter Mandrik, Yeqing Bao, and Zheng Zhou at Virginia Tech for their sincere support and encouragement.

Finally, I would like to deeply thank my wife Xin Jiang, my daughter Sarena, and my sons Samuel and Danny who have held the fort and kept the faith. Without their unending love and support, this dissertation is impossible. With all my heart, I dedicate this dissertation to my parents especially my mother, Mrs. Shirley Wan.

Table of Contents

Tables

FIGURES

STATISTICAL RESULTS

Chapter 1 Introduction

1.1 The Problem

For decades, research on family purchase decision-making has been conspicuous by its lack of process analyses (Brinberg and Schwenk 1985; Granbois 1971; Webster 1997). The majority of the past investigations in this area, conceptual and empirical alike, have focused primarily on the outcomes of family decision making, such as "who has been involved in purchase," "who has had the more final say," rather than the process leading to the outcomes. The common justification of this outcome-oriented research on family decision making is that identification of the *influential* spouses in the household is conducive to designing the appropriate marketing and advertising strategies (cf. Corfman 1991; Filatraut and Ritchie 1980; Munsinger et al. 1975).

This "black box" model of family decision-making, as noted by Davis (1976), has yet illuminated little on how families reach decisions. In particular, family decision-making as a temporal process of *interaction* between couples has yet to be understood. The problem here is not who decides but rather how the one who decides in joint family decision making resolve the potential conflict that has been assumed away by most consumer researchers (Kipnis 1976). Of more theoretical importance is therefore to uncover the dynamic of family decision processes in which a set of process variables combine to predict spousal influence (Sprey 1975). For example, how do spouses get their way in joint family decision-making, given the revealed preference discrepancy (Bonfield et al. 1984; Davis 1976; Krishnamurthi 1988; Menasco and Curry 1989; Seymour and Lessne 1984)? What is the interaction process between couples, or how do spouses "muddle through" the joint decision process by reacting to the others' decision strategies and adjusting their decision behaviors thereafter (Brinberg and Schwenk 1985; Park 1982, 1978; Pollay 1968; Qualls 1988)? Managerially, the marketing strategies based on the static influence assumption are uninformative, given the changeable predictors of influence, such as power, sex role orientation, and preference (Jaworski et al. 1984). Marketers concerning better targeting of marketing activities may still query: Who is the right person to target in marketing promotion, when the consumers' preferences and decision behaviors are changeable? For example, consumers may reshape their influence pattern based on a sense of overall fairness or a changed utility function in ongoing family decision making (Beckman-Brindley and Tavormina 1978; Pollay 1968). Furthermore, how can marketers influence family decision making toward the ideal marketing goals in light of the family power dynamics? Marketers may induce those *powerful* spouses to use their power in a specific purchase occasion according to their revealed preference for the promoted product.

It goes without saying that answers to these questions are important because they guide designing effective marketing strategies, such as selecting the proper respondent in consumer research surveys, determining the content of advertising messages, selecting advertising media, and assisting in the location of retail outlets, to name but a few (Davis 1976). However, answers to these questions pivot upon our understanding of how families reach decisions.

As a laudable attempt to uncover this "black box" model, a set of recent studies has investigated spousal influence strategy choice behavior in joint family decision-making (cf. Kirchler 1993). It

is assumed that the husband and wife are less likely to agree upon a decision outcome without the process of accommodation, given their diversified preferences. Hence, the typical spousal family decision is that in joint family decision making when various alternatives are being considered, each spouse will attempt to influence the other toward his/her preferred decision (cf. Davis et al. 1986; Kirchler 1993; Menasco and Curry 1989; Park 1982; Spiro 1983).

It is thus argued that investigations of what factors determine spouses' influence attempts and why they choose specific influence strategies in getting their way represent a promising direction in uncovering family decision processes (cf. Davis 1976; Granbois 1971; Seymour and Lessne 1984; Sheth 1974). Toward this end, Belch et al. (1980) examined family conflict resolution modes across a variety of product categories. Spiro (1983) identified the impact of certain socioeconomic and situational characteristics on the choice of influence strategies in joint family decision making. Nelson (1988) clarified a taxonomy of influence strategy scales and whereby investigated the factors underlying the choice of conflict management strategies in joint family decision making. Qualls (1988) examined the underlying structure of household conflict and conflict resolution. Kirchler (1988, 1990, 1993) distinguished between conflict types and between relationship characteristics in terms of their moderating effects on spousal influence strategy choices. Kim and Lee (1996) further developed taxonomies of couples based on spouses' use of different influence strategies in family decision making.

It should be pointed out that this stream of research, though illuminating, has been insufficient to uncover family decision processes by lacking the interpersonal aspect of couple's conflict resolution (Qualls 1988). Specifically, the simple identification of the determinants of spousal influence strategy choices still fails to identify the interaction and dynamics that characterize the family decision process. In the literature, family decision making has been conceptualized as ongoing interaction (Beckman-Brindley and Tavormina 1978; Granbois 1971; Spiro 1983; Sprey 1975). Given the conflict in a dyadic decision making, spouses may use different influence strategies or influence strategy mixes to get their way, conditional on their partner's choices of strategies. The interaction between husband and wife is thus key to understanding joint family decision making (Brinberg and Schwenk 1985; Kenkel 1961). Moreover, spousal decision behavior is not static but is reviewed and evolves over time. Spouses may adjust their influence tactics used in a sequence of decisions in order to maintain equity in a long-term marital relationship (Davis 1976; Pollay 1968).

Therefore, precisely speaking, this stream of research has only investigated *why* spouses choose certain influence strategies to gain compliance but not *how* they use different strategies in response to the other's actions and, dynamically, *how* they adjust their decision behaviors in a sequence of family decisions in light of their past decision behaviors (cf. Blau 1964). Suffice it to say that an investigation of family decision process without uncovering the interactions and dynamics embedded in the process is far from adequacy.

1.2 Research Questions

Given the above limitations concerning the insufficient process analysis in existing research, several important issues remain to be investigated:

(1) What are the *behavioral interactions* that characterize household conflict resolution processes? For example, how do spouses react to their partners' use of different types of influence strategies, e.g., coercive strategies vs. non-coercive strategies?
(2) What are the *temporal aspects* of spousal family decision behaviors? For example, do spouses who used too much power in the past tend to use less power currently?
(3) Managerially, can the dynamic interaction perspective on spousal family decision behavior enhance our understanding of family decision processes?

This dissertation attempts to answer these questions by literally modeling spousal influence strategy choice behavior in joint family decision making. The objectives of this research are fourfold. First, this dissertation will explore the major factors that may determine household conflict resolution. Three variables basic to the family process are included. As the main facet of family exchange, marital power is investigated in terms of its direct impact on influence strategy choices (Kipnis 1976; Turk 1975; Webster 1997). Also, preference intensity is investigated, which underlies household conflict and may induce people to use power (Corfman and Lehmann 1987). In addition, love, which characterizes family life, is studied. According to Foa and Foa (1973), love as a resource may alter the exchange pattern in family decision making. Obviously, by including these variables we capture the effects of individual spouse's resources, preferences, and emotions on his/her decision behavior in a dyadic relationship.

Second, this dissertation will investigate the *interaction process* between couples in light of household conflict resolution behavior. Joint family decision making is conceptualized as an ongoing interaction (Granbois 1971). A spouse's choice of a specific power strategy thus may well be affected by the other spouse's action. Based on a common taxonomy of influence strategies--coercive strategies vs. non-coercive strategies in social psychology and family sociology (cf. Christensen and Heavey 1993; Molm 1997; Tedeschi and Felson 1994; Thomas 1976), this dissertation will try to uncover the *behavioral reaction* in one spouse's choices of coercive or non-coercive strategies, given the other spouse's decision behavior.

Third, this dissertation will study the "*carry-over effect*" in a spouse's sequential choices of influence strategies from a dynamic perspective. Previous studies proposed that in a dyadic decision relationship, past decision behaviors of one spouse may influence his/her current decision pattern or power use (Corfman and Lehmann 1987; Pollay 1968; Qualls 1988) or define expectations about behaviors shared by both spouses in the future (Thibaut and Kelley 1959). Therefore, decision history is a suitable temporal construct for investigating family decision dynamics.

Finally, this dissertation will also investigate the effectiveness of coercive influence strategies and non-coercive influence strategies and spouses' satisfaction toward both the decision outcomes and processes. Who wins in a specific decision and spousal attitudes toward conflict resolution thereafter serve as an important predictor to forecast spouses' subsequent decision behaviors.

For these purposes, a dynamic simultaneous equations model (DSE) will be developed. The dependent variables are spousal coercion propensity which is measured on the difference of

spousal coercion scores and spousal non-coercion scores. This construct captures the extent to which spouses will use strong means of influence (e.g., assertive power strategies) to resolve household conflict. The independent variables include power, preference intensity, love, and the other spouses' coercion propensity (the other endogenous variable in the model). In order to capture the temporal aspect of spousal decision behavior, a first-order autocorrelated error regression model (AR(1)) is developed. The dynamic simultaneous equations model then will be calibrated by means of the Autoregressive Two-Stage Least Squares approach (A2SLS) (Stewart and Wallis 1981).

1.3 Significance of the Dissertation

This dissertation fills at least one void in group decision modeling in marketing, in which the knowledge of decision processes is, for the most part, inferred from decision outcomes. There have been no efforts in modeling group decision process from a dynamic interaction perspective and the findings of past research have been exclusively based on static decision outcomes. Thus, theoretically, this dissertation may contribute to developing an understanding of how families reach decisions (Davis 1976) by modeling family conflict resolution. An interactive model of spousal influence strategy choice behavior represents an initial attempt to understand reciprocal actions in joint family decision making. A dynamic model may also capture spouses' sequential decision behavior in continual family decision processes. Thus, a causal framework makes it possible to take a process-oriented perspective on family decision-making, in which spouses reciprocally influence each other over time (Jaworski et al. 1984).

The marketing implication lies first in the importance of understanding spousal influence dynamics that may illuminate on the nature of decision outcomes. For example, the pattern of spousal reciprocal actions in family decision making reveals not only the dependence levels between spouses (Blalock and Wilkin 1979; Homans 1974), but also the exchange norms in a persistent marital relationship (Kelley 1983). Contrary to the prediction of the "black box" model which ascertains that the influential spouses are invariantly those having more power bases or stronger preference (Blood and Wolfe 1965; Corfman and Lehmann 1987), an understanding of spouses' behavioral reactions to their partners' use of a specific power base or not using power may help target the right person in family purchase decision making. This type of information on the state of marital relationship is also among those important demographic data that guide the effective advertising (Wells et al. 1995).

Next, an understanding of spousal power and preference dynamics based on spousal decision history may help predict how families reach decisions in a foreseeable future (Corfman and Lehmann 1987).

1.4 Organization of the Dissertation

The structure of this dissertation is as follows. Following this introductory chapter, Chapter 2 provides a review of literature relevant to influence strategy choice behavior in a dyadic relationship. Chapter 3 presents a conceptual model in which joint family decision making is conceptualized as a two-person accommodative decision process. Several hypotheses are developed based on a set of behavioral assumptions that capture spousal influence strategy choice behavior in an accommodative family decision making. Chapter 4 develops the dynamic

simultaneous equations model and the methodology encompassing research design, the sample, procedures, and the measures. The empirical analyses and results are presented in Chapter 5, and Chapter 6 contains a summary and conclusions.

Chapter 2 Literature Review

This chapter presents a review of the literature pertaining to the essential issues of this dissertation. It first discusses the multidisciplinary perspectives on dyadic conflict management involving power, influence, and choice of influence strategies. It then discusses the methodological issues germane to the empirical studies of dyadic conflict resolution, which include taxonomies of influence strategies, data collection, and validity issues.

2.1 Review of Literature on Dyadic Conflict Management

Since the main purpose of this dissertation is to investigate the interaction and dynamic of family conflict management which consumer research literature lacks, this chapter will take a multidisciplinary perspective on dyadic conflict management by drawing upon the literature from social psychology, family sociology, and consumer behavior as well. Social psychology abounds in analyzing the relationships among power, preference intensity, and conflict resolution modes. Family sociology contributes to the insights as to the exchange pattern in family life. And consumer behavior literature sheds light on decision history that adjusts spouses' decision behavior from a long-term perspective. Therefore, this part of review will draw upon the extensive literature to form a conceptual framework for dyadic conflict resolution in family decision making.

2.1.1 Definitions: Power and Influence Strategy

Theorists from various disciplines concur that power represents one of the most fundamental aspects of social interaction (e.g., Bacharach and Lawler 1981; Olson and Cromwell 1975). However, power has also been perceived to be elusive that is hard to describe and understand (Bierstedt 1950). The major difficulty lies in how to define power and validate it in the empirical study. These issues are important because different definitions of power may lead to conflicting theoretical findings (Cromwell and Olson 1975; McDonald 1980; Molm 1997; Tedeschi and Bonoma 1972). For example, power has been conceptualized as the capacity based exclusively on resources to achieve intended effects (e.g., Dahl 1957; March 1955; Weber 1947). In other words, power is synonymous with personal resources that determine the ability to influence. In a decision-making context, this individual property definition of power has meant that a party with more power relative to his partner will have more influence, because "...once we know which partner has more education, more organizational experience, a higher status background, etc., we will know who tends to make most of the decisions" (Blood and Wolfe 1960). From this perspective, variables such as income, education, and occupational status and their comparative amounts will determine the distribution of influence. And because of this linear relationship between these two concepts, i.e., power and influence, some theorists are tempted to interchange the terms "power" and "influence."

Power has also been viewed as a relational or system property that emphasizes dyadic processes rather than personal traits (Cartwright 1959; Emerson 1962; Lewin 1951; Nagel 1975; Simon 1953; Yukl 1981). For example, Lewin (1951) specifically states that "The power of A over B is the quotient of maximum force that A can induce on B and the maximum resistance that B can

offer." Emerson (1962) holds that power to control or influence the other resides implicitly in the other's dependency.

This dissertation will adopt the relational definition of power. That is, power is seen as a control process in family decision making, which may involve such factors as assertiveness, compliance, persuasion, opportunity cost, withdrawal, reciprocity, to name but a few. Specifically, power to control or influence resides in spouses' mutual dependency (Emerson 1962). Hence, power process in family decision making will be a structural power balancing process in which spouses use their resources, tangible or intangible, to exchange for what they desire. Here, the notion of cost or bargaining skill is important because the desired outcome will depend on how cost or strategy of exchange is considered. As noted by many researchers (e.g., Blau 1964; Dowd 1975; Emerson 1976; Foa and Foa 1974), people with less power or the powerless may be more influential in a particular decision because of his/her tactical use of power or the other party's considerations of costs of using power. This implies that if power is viewed as a process variable rather than a static personal trait, it will not always equal influence which can be gained or altered by means of a whole set of influence tactics (Deutsch 1969; Scanzoni 1972).

Corresponding to the two power definitions, Molm (1997) distinguishes between structurally induced power use and strategic power use. The structurally induced power use is based on an asymmetrical exchange and actors even need not be aware of their power advantages, or make any conscious efforts to influence others (Molm 1997). In contrast, strategic power use, as the term "strategy" suggests, is purposive rather than instinctive. Actors who strategically use power do not merely respond to the consequences of their own behaviors; they create contingencies that produce consequences for other actors' behaviors as well (Thibaut and Kelley 1959). Molm (1997) suggests that the effective use of power strategies can either enhance actors' influence (for example, the powerless actor) or lower the cost of using power (for example, the powerful actor).

Given this distinction, the formal definition of influence strategy that refers the concept to the actual use of power to influence another's behavior and/or decision making (Frazier 1983; Frazier and Summers 1984; Raven et al. 1998; Tedeschi, Schlenker, and Bonoma 1973) seems somewhat fuzzy. Using this definition of influence strategy, we are unable to tell if the influence is intentional. Also, we will have difficulty in discerning if the influence is interactive or reciprocal. As such, this dissertation defines influence strategy as *the strategic use of power in an attempt to get one's way in a conflicting context.* This definition carries two connotations: (1) influence is intentional--actors may choose to use power or not use power, or use different types of power; (2) influence is interactive--an actor's use of power is conditional on the other actor's power behavior in a dyadic relationship (Szinovacz 1987). For example, in joint family decision making when conflict is revealed, spouses may use coercive influence strategies such as punishments and threats, or non-coercive strategies such as persuasion or simply concession. Also, spouses may strategically consider using coercive or non-coercive power, contingent on the types of power used by their partners. To be more specific, the powerful spouse may be less influential because of his/her not using power constrained by the high costs of using power, such as time, energy, or potential damage to the marriage. In contrast, the less powerful spouse may be more influential because of his/her stronger preference or tactic use of his/her limited power.

Power and influence strategies literature is vast, spanning a variety of disciplines (cf. Berger 1995). Given the specific goal of this research, the following section reviews only those topic areas pertaining to conflict management in a dyadic relationship.

2.1.2 Multidisciplinary Perspectives on Influence Strategies

Social Psychology Perspective

Research on dyadic conflict resolution in social psychology has theoretical roots in a series of power theories such as field theory (e.g., Cartwright 1959; Lewin 1951), exchange theories (e.g., Blau 1964; Emerson 1962; Homans 1961; Thibaut and Kelley 1959), and decision theories (e.g., March 1955; Pollard and Mitchell 1972). Power has been a central concept in social psychology in explaining dyadic conflict resolution.

Field theory A basic assumption underlying field theory is that behavior is a function of needs or tensions that occur within a given field of interaction. Power of A over B in a dyadic relationship is defined as "the quotient of maximum force that A can induce on B and the maximum resistance that B can offer" (Lewin 1951, pp.336). Power according to Lewin is conceived of as a combination of potential to induce forces and overt behavior of resisting those forces. Therefore, power is either the ratio of compliance to resistance or alternatively the difference between compliance and resistance. A typical question raised by field theory then is when and under what conditions does potential power lead to actual power (control)? Or similarly, when and under what conditions does the opponent choose to comply or to resist?

French and Raven (1959) contributed to clarifying the conditions and range A can exert power, by specifying five types of power bases: reward power, coercive power, legitimate power, referent power, and expert power. These power bases are built on B's perception or beliefs that A has such capacities. Therefore, these five types of power bases also provide at least five different motive bases for B to get involved in a power relationship with A.

Exchange theory Exchange theory suggests an interactive process in which actors attempt to maximize rewards and minimize costs in an effort to obtain the most preferred outcomes. Interactions are conceived of in terms of the mutual exchange of rewards (benefits) and punishments (costs). Therefore, social power, according to the exchange theory orientation, is determined by the amount and range of control one partner has over the rewards and punishments of another. In a dynamic pattern, power is also determined by a set of balancing and re-balancing power strategies (Emerson 1962). When imbalance of power in terms of resources occurs in the exchange, the party who is less dependent on the other party is more powerful (Dowd 1975; Emerson 1962). On the other hand, when power is balanced, the party who is less caring about the rewards, thus being less dependent on the relationship, is more powerful (Waller and Hill 1951).

Exchange theory differs from field theory in that exchange theory views power as an actual process of exchanging resources based on the considerations of rewards and costs, rather than as a potential. The actual process of power exertion is referred to as influence. As such, a satisfying power relationship is predicated on the net gain (rewards minus costs) obtained from exchange, commitment, and equity. In other words, power process should be a non-zero-sum

game or both parties must gain from the exchange. In this sense, resource exchanges are compared to bargaining processes.

Decision theory Different from the political decision theories (March 1955), the decision theory developed by Pollard and Mitchell (1972) adds to decision processes a benefit/cost analysis--an assumption that individuals will choose actions that result in the most positive and least negative outcomes. The major conceptual components involved in this theory are the overall "subjective expected utility" (SEU) that formally specifies probabilities of obtaining outcomes and the utility of these outcomes to the individual (see Edwards 1954; Lee 1971).

Therefore, according to decision theory, individuals will try to maximize the SEU by selecting the optimal course of action among various actions under the "risky decision" conditions. From this perspective, social power is the ability to affect the target's decision making regarding some behavior the agent desires. Conversely, the target's subjective probabilities that the various outcomes will occur as a consequence of his compliance or noncompliance will determine his behavioral choice of strategies. Inasmuch as the concept of subjective probability has been implicit in other social power theories such as field theory and exchange theory, the conceptual ideas of decision theory are consistent with these conceptualization of social power (Pollard and Mitchell 1972).

The commonality of these three power theories lies in the ongoing interactive process, in which the use of power, influence, and influence strategies are based on the common benefit/cost consideration. As Singleman (1972) remarks: "The dynamic of social interaction consists of the continuous balancing and rebalancing of power which takes the form of reducing needs, acquiring by force, providing inducements, or seeking out alternative sources for rewards (pp.174). In other words, social power processes can be characterized by actors' use of coercion (e.g., acquiring by force) or non-coercion (e.g., reducing needs, providing inducements, or seeking out alternative sources for rewards) in achieving their desired outcomes. In the power-dependency paradigm, for example, we can envisage that actors who are less dependent on their partners are less concerned about the cost of using power because their subjective probability that their partners would punish or withhold rewards is lower. Thus, the less dependent or more powerful actors are more likely to use coercive power that is of higher cost but less time consuming in get their way (Kasulis and Spekman 1980).

In their conflict resolution model, Tedeschi et al. (1972, 1973, 1976) identify three types of costs associated with influence attempt. The first is fixed costs, which are known prior to exercising power and are voluntarily incurred by the source (e.g., investments on power bases and surveillance of the target). The second is opportunity costs, which are contingent on the target's reaction to influence attempts (e.g., given the noncompliance, influence strategies, threats or rewards, must be decided). The third is target imposed costs, which are directly administrated by the target using resistance, retaliation, or counterinfluence. The later two types of costs explicitly imply an interaction process in choosing influence strategies.

It is proposed that power and conflict intensity, among others, are positively related to coercive actions. Here, power is synonymous with coercion (cf. Bierstedt 1950; Emerson 1962, 1972a,

1972b; Homans 1961; Thibaut and Kelley 1959) or coercive actions can be reconceptualized as different forms of coercive power (cf. Tedeschi, Smith, and Brown 1974). Because within exchange paradigm, the dependence notion of power can be couched in such cost terms-for example, the dependence of A on B can be construed as B's ability to levy cost on A (Bacharach and Lawler 1980). Therefore, in a dyadic relationship, when the power is unequal, the source with unilateral power advantage in a conflict situation would naturally prefer the use of threats or punishments to the use of promises, to get his/her quick way.

Conflict intensity, by definition, is measured by the degree to which preferences, either the terminal values or procedural values, of the source and target are incompatible. Therefore, what increases one party's subjective expected gains will decrease the other party's subjective utility. Scarcity of resources is the major basis of conflict. These resources include both subjective utility and objective utility such as the use of a product. The greater the scarcity, the more intense the conflict between the contending parties. Fischer (1969) in an experiment operationalized conflict intensity as the scarcity of resources available to subjects in a competing situation. It was found that the number of threats used by the competitors was positively related to scarcity.

At issue then is who is more likely to use coercion given the incompatible preferences between the contending parties. There are three choices faced with each competitor: (1) simply withdraw or give up the desired resource; (2) seek resolution through compromise; or (3) attempt to make the other competitor withdraw. Each person can choose from among a variety of influence strategies to gain more favorable outcomes in conflict. It was found that non-coercive strategies are not likely to be effective when conflict is intense (Kasulis and Spekman 1980). And as the intensity of conflict increases, there is an increased need to resolve the conflict by compelling the other person to give way (Tedeschi et al. 1972). The cost associated with withdrawal is higher for the person with stronger desire to win or higher preference intensity; thus he/she is more likely to choose coercive strategies. In other words, coercion is more likely when the person's stake is higher (Felson 1983; Tedeschi and Felson 1994).

Bacharach and Lawler's (1981) bargaining power model explicitly investigates the interactive process of strategic use of power. Bargaining is conceptualized as a process of social interaction in which each party attempts to maximize his gains and minimize his costs. Thus, each party uses various power tactics to accomplish this goal, manipulating the other party in the desired direction. Based on social exchange theories, the model identifies two major types of tactical actions: tactical concessions and punitive tactics. Concession behavior is conceptualized as the choice between moving toward agreement and moving toward disagreement, which, again, is a function of the costs and benefits attached to the concessions. Punitive tactics, on the other hand, emphasize coercion, an attempt to force the opponent to make additional concessions.

It is proposed that the choice of tactical concessions is the negative function of the source's bargaining power but positively related to the target's power. Also, the actor with stronger preference for or more committing to the decision outcome is less likely to make concessions. With regard to punitive tactics, an interaction analysis reveals two contrasting theoretical results: bilateral deterrence and conflict spiral (cf. Morgan 1977; Schelling 1960). Deterrence is rooted

in the capacity to retaliate threatening to attack to prevent the opponent from first using force (Morgan 1977). Therefore, an increase in one party's punitive capability decreases the frequency of punishment tactics (including threats) by the opponent and increases the opponent's concessions because of his/her fear of retaliation and expectation of attack. On the other hand, conflict spiral theory (Deutsch and Krauss 1962; Deutsch 1973) predicts that an increase in the level of punitive capabilities within the relationship tends to increase the level of threats and punishment tactics within the relationship. This effect is based on the belief that to have power is to use it (Emerson 1962, 1976). As each individual in the negotiation uses power they bring the conflict spiral to new heights.

Thus, combining Tedeschi et al.'s (1973, 1976) conflict resolution model and Bacharach and Lawler's (1981) bargaining power model, we propose that

Proposition 1: Actors with more power are more likely to use coercive influence strategies.
Proposition 2: Actors with higher preference intensity for a decision are more likely to use coercive influence strategies.

Several recent studies have further conceptualized this ongoing interactive power process using the same dichotomy of coercion and non-coercion (cf. Molm 1997; Tedeschi and Felson 1994). Here coercive action, which include threats and punishments, is defined as an action taken with the intention of imposing harm on the target or forcing compliance. Non-coercive action, which include persuasion and the provision of rewards, is an action intended to increase the frequency of compliance (Tedeschi and Felson 1994). Therefore, Molm (1997) defines strategic power use as the selective giving or withholding of rewards or punishments, contingent on the exchange partner's prior behavior.

In a dyadic exchange setting, the choice of coercive actions or non-coercive actions, from a social interactionist point of view, depends on actors' values, costs, and perceived probabilities of gaining different outcomes. Valued outcomes may induce proactive coercion, as is consistent with proposition 1 & 2, that is directed against the target by means of exploitation or forced compliance. Reactive coercion develops when a person uses coercion in response to a perceived attack or norm violation from another person (Tedeschi and Felson 1994). A theory of coercion has been developed (Molm 1997), concerning behavioral reactions in reciprocal uses of coercive actions or non-coercive actions. It is posited that the strategic use of coercion is constrained by fear of loss, mutual dependence, and norm of fairness, while it is, on the other hand, encouraged by the gain of coercion such as compliance or saving face (Molm 1997; Tedeschi, Schlenker, and Bonoma 1973; Tedeschi and Felson 1994). So, the choice of coercive strategies is pivotal on whether the "loss aversion" (Tversky and Kahneman 1991) works in a bilateral power setting. According to prospect theory, under risk and uncertainty, the negative subjective value of a loss is greater than the positive subjective value of an equivalent gain (Kahneman and Varey. 1991; Tversky and Kahneman 1991). Consequently, given the threats or potential punishments, actors are less likely to return coercion in kind because they tend to inflate the costs of coercion, such as opportunity costs or target imposed costs. This is consistent with the prediction of deterrence theory (Bacharach and Lawler 1981)

This theory of coercion also looks at the relationship between justice and strategic power use, that is, reward withholding or coercion (Molm 1997). In an exchange setting, justice or equity is said to establish when outcomes received are contingent on, and functionally equivalent to, outcomes given (Gouldner 1960; Molm et al. 1993). It is then argued that both reward withholding and coercion violate this norm of reciprocity and fair exchange, but coercion will be more likely judged unfair. This prediction is also based on the principle of loss aversion (Kahneman and Varey 1991), that is, actors tend to perceive coercion as more nonreciprocal than reward withholding because they perceive losses incurred by punishments as more negative than equivalent gains produced by rewards as positive. Given the perception of injustice of coercion provoked in the target, he/she tends to respond with behavioral efforts to restore justice by resisting or retaliating the source's use of coercion. This will add to the costs of the source's use of coercion and, accordingly, reduce the frequency of the source's use of coercion (Molm 1997). This is truer from a long-term perspective. In a sequence of power uses, frequent use of coercion will strengthen the perception of injustice and thus intensify the behavioral efforts to resist or retaliate. Consequently, actors tend to avoid frequent uses of coercion in a sequence of exchanges either because of the increased costs of using coercion or because of their own conscious avoidance of injustice behavior. These above results can be summarized as the following theoretical propositions:

Proposition 3: Actors are less likely to return coercion in kind in a dyadic relationship, when the costs of coercion are perceived.
Proposition 4: Actors are less likely to frequently use coercion in a continual exchange process, when the norm of reciprocity is perceived.

Family Sociology Perspective

Family is the arena where power and influence are wielded most often (Sprey 1975). However, research on family power has long been dominated by a single theory-the resource theory (Safilios-Rothschild 1976). This theory posits that "the balance of power (in decision-making) will be on the side of the partner who contributes the greatest resources to the marriage" (Blood and Wolfe 1960, p12), where power is conceptualized as "the potential ability ... to influence the other's behavior" (Blood and Wolfe 1960, p11). Resources are generally defined as any "... property of a person or group which can be made available to others as instrumental to the satisfaction of their needs or the attainment of their goals" (Wolfe 1959, p100). Obviously, the resource model focuses on identifying the bivariate relationship between the power bases and the consequences of power rather than on how power is used in interaction; hence it is unable to uncover the complexity and dynamics of ongoing "powering" process (Sprey 1975; Szinovacz 1987). In actuality, the resource theory has found many inconsistent empirical results, especially in a cross-national context (cf. Rodman 1967, 1972; Webster 1997).

Given the controversial findings in the empirical studies, several theoretical criticisms on family power were developed. Heer's (1963) "exchange theory" represents a revision and extension to resource theory. According to this revised model, the perception of possibility of separation, divorce, and subsequent remarriage has a significant impact on spouses' power behavior. Given these alternatives to the marriage, marital power becomes conditional--conditional not only on the socioeconomic resources but also on a set of social-psychological attributes such as personal

attraction and role competence. The spouse with the least interest (e.g., less loving) in the marriage tends to be the one with the higher probability of exploiting the other, thus having more power (Heer 1963; Waller and Hill 1951).

Safilios-Rothschild (1976) develops another "exchange model" regarding the theoretical formulation of family power. She criticized the resource theory on its lack of cost concept in terms of withdrawal of resources and its narrow range of resources exchanged between spouses. Therefore, she added to the socioeconomic resources a list of desired goods, such as love, emotional support, companionship, sex, and services, which may be exchanged in a family dynamics. Safilios-Rothschild (1976) suggests that in an ongoing marital exchange, the spouse having more access to the highly valuable resource to which the other spouse has less access becomes "necessary" and more powerful. For example, the spouse more in love desires love to a greater extent; thus he/she is willing to give up more in exchange for love. This is in line with Foa and Foa's (1974) resource exchange model, in which love nevertheless is more likely to exchange for status or service.

Different from the above marital power perspective, Kelley (1983) investigates the relationship between love and commitment in general. In a marital relationship, love referred to as pragmatic love is distinguished from passionate love or romantic love that is merely "a state of intense physiological arousal" (Berscheid and Walster 1978). Pragmatic love is synonymous with emotional dependence, trust, and tolerance in a lengthy marital relationship, and is built on mutual commitment. Consequently, a loving couple tends to favor using rewards by avoiding punishments in conflict resolution in order to maintain a stable marriage (Kelley 1983). Note that Kelley's discussion of love implies an exception to social reciprocity theory, that is, in a sequence of interactions the one's acts breed counteracts of a similar sort from one's partner (Gottman 1979). In a close relationship like marriage where closeness is sustained by mutual dependence, trust, and tolerance, couples are more likely to reciprocate cooperative actions but less likely to reciprocate competitive actions such as coercion.

This proposition is supported by Raush and his associates' (1974) conflict avoidance model in family decision making. It is proposed that spouses tend to avoid direct confrontation with each other in a conflictual situation by shying away conflict. Especially, spouses avoid using aggressive or coercive actions such as threats to initial conflict and return attack, in order to avoid hurting each other's feeling. The underlying mechanism is that the perceived conflict touch off a primary affect that, because of earlier dangers, arouses anxiety. Defense against anxiety, in conjunction with the primary affect, leads to the conflict avoidance behavior. For example, on an interactive level the husband's anger over the disagreement arouses potentials for depression over loss of love in the wife; she defends by means of the manipulative use of distracting or irrelevant remarks while maintaining stance of rejecting the other. It was found that evidently happy couples are more likely to systematically and successfully deny conflict in order to maintain their euphoria (Raush et al. 1974).

These conceptual developments about love in marital exchange lead to the following propositions:

Proposition 5: In family power struggle, other thing being equal, the more loving spouse is less powerful.
Proposition 6: In family conflict management, love is negatively related to coercion.
Proposition 7: In family conflict management, the husband's use of coercion is less likely to be returned in kind by the wife and vice versa.
Proposition 8: In family conflict management, the husband's use of non-coercion is more likely to be returned in kind by the wife and vice versa.

Consumer Behavior Perspective

Consumer researchers have long recognized the potential for conflict in family decision making (cf. Davis 1976; Davis et al. 1986; Granbois 1968; Menasco and Curry 1989; Park 1982; Pollay 1968; Seymour and Lessne 1984; Sheth 1974). Several models of conflict resolution have been suggested, which echo the conceptual developments of dyadic conflict management in social psychology and family sociology.

Sheth's (1974) model Sheth suggests that the presence of interpersonal conflict in joint purchase decisions entails attempts to resolve it before specific brands can be agreed upon. The strategies used to resolve the conflict are different, depending on whether the conflict arises from differences in evaluative beliefs or from differences in buying motives (March and Simon 1958). Sheth, therefore, suggests four forms of conflict resolution, which include problem solving, persuasion, bargaining, and politics.

Problem solving is seen as the most common strategy used to resolve conflict that arises from the consequence of disagreement as to evaluative criteria rather than buying motives. The propensity for problem solving among family members may lead to more information search, in order to gather more evidence to enhance the alternative evaluation. Persuasion aims to resolve conflict arising from disagreement as to specific subgoals rather than a fundamental objective. Given the agreement on the basic value, persuasion involves no attempt to gather more information on the specific alternatives; instead, conflict is resolved through greater interaction among the members in conflict. The process of bargaining is resorted to when the disagreement over buying motives is considered as fixed by the family members. Bargaining thus refers to the exchange of favors granted to the other family members in the process of turning the joint decision into several autonomous ones. Given the scarcity of family resources and incompatible values rooted in premarital backgrounds, bargaining in family decision making seems inevitable and the concept of distributive justice or fairness is highly likely to be invoked. Finally, politics purports to resolve the conflict arising from disagreement over not only specific buying motives but, more fundamentally, about the style of life as well. Differences seem irreconcilable and some tough strategies are used to resolve the conflict. These strategies include the formation of coalitions and subgroups of some of the family members in an attempt to isolate the family member, with whom there is conflict, thus forcing him/her to yield to the majority.

Davis' (1976) Model Davis (1976) classified family decision-making into two "ideal" representations: a consensual decision model and an accommodative decision model. Consensual decision is based on a unanimity or agreement among family members about what values--i.e. desired outcomes—are relevant in the decision. Therefore, joint decision is a process

of identifying the consensus. Conversely, accommodative decision involves a set of conflicts as to both purchase goals and alternatives. Perceived discrepancy in priorities and preferences leads to attempts to accommodate and resolve the disagreements.

In general, problem solving is sufficient to resolve all the differences in a consensual decision as to which alternative can satisfy the minimum level of expectations of all members with respect to their values. Under the accommodative decision model, Davis (1976) suggested two types of decision strategies, persuasion and bargaining, which might be used by family members to resolve conflict. Persuasion strategies such as criticism, coercion, and coalition involve a way of forcing a family member to make decisions that she or he would not otherwise make. Bargaining strategies, unlike persuasion strategies that represent relatively short-run efforts to win a specific decision, involve longer-term considerations whereby family members exchange their "favors" in a series of family decisions. Specific bargaining strategies may include "waiting for next purchase," "impulse purchase," and "procrastinating." As such, persuasion strategies and bargaining strategies in an accommodative decision represent two types of conflict resolution modes.

Note that both Sheth's (1974) model and Davis' (1976) model lack a mechanism specifying who will use which type of decision strategies, though Davis noticed the situational nature of choosing decision strategies. In this regard, several other models from consumer research, which shed light on the mechanism of conflict resolution, merit attention.

Pollay's (1968) Model In this model, husband-wife decision making is conceptualized as a continual interactive process, in which the distribution of utilities associated with a joint decision is based on decision priorities, distributive justice, and utility debt. Decision priority refers to unequal utilities distributed between spouses; for example, priority may be given to the preference of the husband over the wife. Distributive justice refers to a share of rewards (receiving utility) proportional to the priority structure which, again, is predetermined by normal position preference such as determined by standard role perception and status congruence. For example, in a traditional family decision might be made in favor of the husband's interest and the wife would not perceive any injustice. In a long-run relationship such as marriages, however, disproportional share of utility may induce utility debt that is determined by the prior history of decision-making and thus tends to adjust the decision priority structure thereafter. For example, if the husband made too many final decisions in the past, which deviates the decision priority prescribed by the normal position preference, he is in debt to his wife in terms of the utilities received; he then must make fewer decisions in the future in order to maintain equity. Such a bargaining process is comprised of three phases: utility bargaining, priority bargaining, and post decision utility debt. It was proposed that in utility bargaining the wife is more likely to persuade her husband to get her preference by inducing empathy or fear of loss of love. If the empathetic feeling induced is not strong enough, priority structure can be re-negotiated by identifying authority, attributing risk, and assessing utility debt. If utility debt is substantiated by product usage or exceeds individual tolerance level, priority structure will be negotiated to ensure distributive justice in future decision making. Clearly, this model delineates a dynamic in which spouses maintain distributive justice in family decision making through a bargaining process. However, its lack of power relationships renders it weak in explaining conflict resolution.

Cofman and Lehmann's (1987) Model This model purports to present a conceptual framework for conflict resolution and relative influence in a cooperative group decision making. The model discerns between the costs of using power and benefits of using power, whereby to investigate the relationship between relative influence and power-related resources and power use-related goals. The costs of using power include costs of resources, costs resulting from personal goals such as desire to avoid conflict, love, preservation of marriage, and decision history--it is more costly for a spouse wining more frequently in the past to use power. The benefits of using power include preference intensity and propensity to win or control. It was found that relative preference intensity and decision history dominate the conflict resolution process. Specifically, members who have more intense preference are more likely to use power; members who possess more power-related resources tend to exert more influence. On the other hand, given the marriage bonds, couples tend to use decision history to equalize gains over time to ensure fairness and equity in family decision making. However, the model is devoid of classification and analysis of influence strategies, thus rendering it impotent in investigating how the family reaches decisions (Davis 1976).

Several empirical studies drawing upon the above conceptual models have investigated family decision processes by specifically looking at spousal influence strategy choice behavior. For example, Belch et al. (1980) tested Sheth's (1974) model, identifying a set of influence strategies commonly used by spouses across product categories. Spiro (1983) based on French and Raven's (1959) paradigm of influence and power investigated Davis' (1976) accommodative decision model. She uncovered the relationships between a whole set of spouses' socioeconomic traits and their influence strategy choice behavior. Corfman and Lehmann (1987) tested Pollay's (1968) model, confirming that decision history does tend to adjust the spousal use of power from considerations of equity in family decision making. Overall, this stream of research on conflict management in family decision making, conceptual and empirical alike, draws heavily upon the power theories in social psychology and family sociology or simply apply these power theories to a family purchase decision context. However, a potential contribution of this stream of research lies in its emphasis on equity or fairness in family decision making. The above four conceptual models of family conflict resolution, without exception, highlight the concept of distributive justice or equity in family decision making, given the family bond or long-term marital orientation (Corfman and Lehmann 1987; Davis 1976; Pollay 1968; Sheth 1974). Hence, as a summary to the above conceptual development, we propose that

Proposition 9: In family decision process, the perception of equity will adjust spouses' use of power in the long run.

Review of Literature on Methodological Issues

In this section, we present a review of methodological issues concerning the development of influence strategy scales, data collection, and measurement.

2.2.1 Taxonomies of Influence Strategies

The development of influence strategy scales pertains to the measurement of influence strategies--the basic dependent measure in this area. Tedeschi, Schlenker, and Bonoma (1973) defined influence strategy as the alternative means of power use to influence another's behavior and/or

decision making. This definition has been widely adopted across disciplines and induced people to derive influence strategy scales either from the power theories-deductive scales or actual uses of power-inductive scales.

Deductive classifications of influence strategies As noted by Kipnis and Schmidt (1983), literature on conflict management is abundant in "deductive" influence strategies--taxonomizations and dimensionalizations of influence tactics mainly based on researchers' theoretical orientation and observations. Typical examples of deductive influence strategies include French and Raven's (1959) power paradigm, Blood's (1960) resource-based tactics, and Tedeschi et al.'s (1973) three categories of ecological control, reinforcement control, and information control. Davis's (1976) model and Sheth's (1974) model represent another two deductively derived lists of conflict management strategies in the family purchase context.

Despite the convenience in deriving influence strategies from the existing theories such as exchange theory, organizational theory, family power theory, etc., the major drawbacks of these taxonomies of influence strategies lie in their diversification in identifying the type or number of conflict management behaviors and construct validity, when compared with sets of tactics actually elicited from empirical data (cf. Kipnis and Schmidt 1983; Kipnis et al. 1980; Nelson 1988). For example, given the purely static lists of influence strategies organized along particular dimensions (e.g., Davis 1976; Tedeschi et al. 1973), we have the faint idea as to which of the proposed dimensions are truly independent of one another (e.g., if the choice of persuasion strategies will not affect the likelihood of choosing bargaining strategies in Davis' (1976) model), which dimension is exhaustive (e.g., is there any tactics beyond "the next purchase," "the impulse purchase," and "the procrastination"?), not to mention the conditions under which specific strategies will certainly be used (e.g., if purchase goal is agree upon, family members will use only problem-solving to resolve their preference discrepancies). More seriously, These theoretically derived influence strategies are highly likely to include strategies not used in reality but exclude ones actually used in real life (cf. Clark 1979; Cody et al. 1980; Kipnis et al. 1980), thus rendering the predictions using them invalid (Nelson 1988).

Inductive classifications of influence strategies Recognizing the limitations of those deductively derived influence strategies, researchers have endeavored to identify conflict management modes based on empirical data. Typically, the procedures begin with a sample of subjects to be asked to indicate strategies they would use in a given hypothetical conflict scenario (e.g., Clark 1979; Cody et al. 1980) or in an essay on "How I get my way" (e.g., Falbo 1977; Falbo and Peplau 1980; Kipnis et al. 1979). Then results are submitted for factor analysis to identify the underlying dimensions and, finally, cross-validated using "experts'" ratings or new subjects. Falbo (1977), using an essay question "How I get (or got) my way" isolated 16 conflict resolution modes in intimate relationships. Falbo and Peplau (1980) further refined them into 13 items which can be identified as having a two- dimension structure: a direct/indirect dimension and a bilateral/unilateral dimension (see Table 1). Based on the previous studies of power strategies in social psychology, Kipnis and Schmidt (1983) isolated seven modes of influence strategies: reason, coalition, ingratiation, bargaining, assertiveness, higher authority, and sanction. Spiro (1983), combining personal interview and prior findings in influence literature, identified 33 influence strategy items which are further classified into six dimensions in husband-

wife conflict resolution (see Table 2). Safilios-Rothschild (1969) based on interviewing 178 couples identified fourteen influence techniques which spouses might use to resolve conflict in family decision making (see Table 3). Based on more extensive interviews (2143 couples), Strauss (1975) derived another fourteen conflict tactics (see Table 4). Other example of inductive influence strategies can be found in social psychology and marketing channel (e.g., Cody et al. 1980; Frazier and Summers 1984). Needless to say, the shortcomings of these taxonomies of influence strategies, as noted by Nelson (1988), lie in their "external validity" and recall problems. However, their richness in tactics items provides the basic attractiveness for this dissertation to adopt inductive lists of influence strategies combining several empirically derived scales, as did by Spiro (1983), and Nelson (1988) (see Table 5).

Table1
Falbo and Peplau's (1980) Influence Strategy Scale

1. I ask him/her to do what I want.
2. We usually negotiate something agreeable to both of us. We compromise.
3. We do our own thing. I just do it by myself.
4. I pout or threaten to cry, if I don't get my way.
5. I repeatedly remind him/her what I want until he/she gives in.
6. I try to persuade him/her my way is right.
7. I smile a lot. I am especially affectionate.
8. I reason with him/her. I argue my point logically.
9. I tell him/her how important it is to me.
10. I drop hints. I make suggestions.
11. I tell him/her what I want. I state my needs.
12. We talk about it. We discuss our differences and needs.
13. I clam up. I become silent.

* Sevent-point Likert scale anchored at 1=not true and 7=definitely true.

Table 2
Spiro's (1983) Influence Strategy Scale

1. I tried to negotiate something agreeable to both of us.
2. I tried to argue my point logically.
3. I voiced my wishes loudly.
4. I told her/him I have more experience with such matter.
5. I suggested to him/her that it is the husband's/wife's task to make such a decision.
6. I became especially affectionate in hopes to change her/his mind.
7. I tried to get her/him to discuss our differences to find the best way.
8. I told her/him that I will never speak to her/him if she/he doesn't do what I wanted.
9. I repeatedly reminded him/her of what I wanted
10. I exaggerated negative points of what she/he wanted.
11. I tried to get my way by doing a good amount of fast talking that included lies.
12. I tried to get my way by making her/him feel it was her/his idea.
13. I kept my position despite all obstacles until she/he gave in.
14. I became cold and distant.
15. I told him/her how important it was to me to have it my way.
16. I reasoned with her/him why she/he should agree to my decision.
17. I tried to convince her/him to accept my judgment.
18. I tried to put him/her in a good mood.
19. I told her/him that I'll do something for her/him if she/he would agree with me this time.
20. I tried to come to some sort of compromise with her/him.
21. I argued that "since you had your way last time you should agree to my decision this time."
22. I tried to convince her/him by showing how much I knew about the matter.
23. I put on a sweet face so that she/he would be more likely to give in to me.
24. I used the silent treatment.
25. I tried to tell her/him all the reasons why my plan is better.
26. I suggested that we talk to somebody who knew more about the matter.
27. I misrepresented what I knew about the other choices in order to convince her/him.
28. I related the discussion to other similar decisions in which I had demonstrated my expertise.
29. I made a point of pleasing her/him prior to the discussion so that she/he would be more likely to give in to me.
30. I told her/him that I'll go along with her/him on some other things if she/he would agree to my idea this time.
31. I tried to convince her/him by exaggerating positive points of my ideas.
32. I threatened that I will quit looking for a house to buy altogether if she/he persisted.
33. I suggested that we look for more information.

Table 3
Safilios-Rothschild's (1969) Influence Strategy Scale

A. Verbal

1. One-sided persuasion.
2. Repetition or nagging.
3. Reasoning, two-sided presentation of arguments, compromise.
4. If opposition, drop subject for more opportune time.
5. Plant idea and wait.
6. Attempt to reason, explain, if no result give up.

B. Non-Verbal

7. Sweet talk, act nice, show affection, do nice things.
8. Anger, crying, pouting, silent treatment.
9. Use of sex.
10. Anger, crying, etc. but if it does not work give up.

C. Do Anyway

11. Does not ask, just do.
12. If disagreement, buys with own money.
13. Try explanation and persuasion, if it fails do anyway.

D. Give In

14. Submit to spouse's wishes.

Table 4
Straus's (1979) Influence Strategy Scale

1. I tried to discuss the issue relatively calmly.
2. Did discuss the issue relatively calmly.
3. Brought in someone else to help settle things (or tried to).
4. Argued heatedly but sort of yelling.
5. Yelled and/or insulted.
6. Sulked and/or refused to talk about.
7. Stomped out of the room.
8. Threw something (but not at my wife/husband) or smashed something.
9. Threatened to hit or throw something at her/him.
10. Threw something at my wife/husband.
11. Pushed, grabbed, or shoved her/him.
12. Hit (or tried to hit) her/him but not with anything.
13. Hit (or tried to hit) her/him with something hard.

Table 5
Nelson's (1988) Influence Strategy Scale

1. I kept repeating or arguing my point of view.
2. I behaved angrily (slammed the door, shouted, etc.).
3. I pointed out how important it was to me the other person do it my way.
4. I reminded her/him of past favors I had done.
5. I waited until she/he appeared in a receptive mood before asking.
6. I tried to understand his/her point of view.
7. I made the other person believe she/he was doing me a favor.
8. I pretended to agree with her/him, then late pushed my own point of view.
9. I showed how much her/his stand hurt me by looking unhappy, crying, sulking, etc.
10. I withdrew affection, acted cold, or ignored the other person.
11. I made a joke about the disagreement.
12. I just stated my needs, I told her/him what I wanted.
13. I promised to do something that would make her/him happy.
14. I pointed out that I knew more about the matter than she/he did.
15. I suggest we talk about, that we discuss our differences and needs.
16. I simply give in.
17. I suggested a compromise.
18. I criticized her/his point of view as being silly, naïve, etc.
19. I refused to do something expected of me (e.g., chores).
20. I got angry and demanded that she/he give in.
21. I tried to convince or persuade the other person that my way was best.
22. I made the other person unhappy by doing things she/he doesn't like.
23. I was especially pleasant, helpful, or charming before bring up the subject.
24. I pointed out that she/he had no right to disagree with me on this issue.
25. I appealed to the other person's love and affection for me.
26. I exaggerated the importance of what I wanted her/him to do.
27. I named a specific punishment that I'd inflict if the other person didn't comply.
28. I pleaded or begged her/him to see it my way.
29. I came up with a totally new solution that might satisfy both of us at once.
30. I distorted or misrepresented the reasons she/he should do what I wanted.
31. I clamed up and refused to discuss the issue.
32. I made the other person think my way was her/his idea.
33. I offered an exchange (e.g., if you do this for me, I'll do something for you).
34. I just went ahead and did it my way.
35. I dropped subtle hints. I didn't mention it directly at first.
36. I made the other person feel guilty.
37. I simply explained the reasons for my request.
38. I obtained the support of others to back up my request.

2.2.2 Methods of Data Collection

Across disciplines, three types of data collection procedures are popularly used in studying compliance-gaining behavior: laboratory simulation, survey approach (also including field study), and experimental interaction procedures.

Laboratory Simulation A lab simulation always involves observations in a laboratory setting simulating the prisoner's dilemma or other mixed-motive (non-zero-sum) games. Interaction processes between stranger dyads are observed as to their competitive strategies (e.g., threats and punishments) or cooperative strategies (e.g., rewards), given a variety of conditions (e.g., symmetric power or asymmetric power, zero-sum game or non-zero-sum game) (e.g., Dwyer and Walker 1981; Marwell and Schmitt 1967; Molm 1997; Roering 1977). Albeit its objectivity, this method of data collection leaves much to desire. In the main, problems include task realism, "on-stage effect", and social desirability bias (cf. Cromwell and Olson; Malhotra 1998). For example, given the hypothetical bargaining tasks and independence of the subjects, we cannot observe the constraining effects of costs of powering on subjects' strategic behavior. Also, the observable compliance-gaining behaviors are limited (Marwell and Schmitt 1967). For example, if most subjects respond with one influence strategy to a given situation, we cannot know what strategies they view as second or third choices and which they view as impossible. Furthermore, as noted by several researchers (e.g., Corfman 1990; Saflios-Rothschild 1969, 1970), observational methods are simply blind to some processes or variables such as displays of affection, sexual negotiations, as well as uses of some subtle rewards or bribe activities like giving gifts and cooking meals, between spouses.

Survey Approach Survey approaches including questionnaire and personal interview are widely used in marketing channel and family decision making studies. In terms of their tense, these approaches can be generally classified into the recalled-incident type and the envisaged-incident type. In the former type, subjects are asked to recall a critical incident in which disagreements or conflict between the dyad as to a specific decision or transaction were revealed. Then, on a given influence strategy scale, the subjects are asked to indicate the likelihood that they used each strategy to resolve the conflict (Frazier and Summers 1984; Kim and Lee 1996; Nelson 1988; Spiro 1983; Wilkinson and Kipnis 1978). Obviously, this paper-and-pencil questionnaire can reach a large sample. However, the recall problem and report bias, as noted by many, may impede the validity of this data collection procedure (Corfman 1991; Olson 1970).

The envisaged-incident approach, on the contrary, asks subjects to imagine several hypothetical situations in which conflicts may exist. The subjects then are supposed to indicate how likely they will use each of the influence strategies on the given scale to get their way in these hypothetical decisions (Aida and Falbo 1991; Falbo and Peplau 19880; Guerin 1995; Hoffman 1982; Kirchler 1993; Marwell and Schmitt 1967; Safilios-Rothschild 1969; Straus1979). Large sample size aside, this method can ask several different decision scenarios (not in a longitudinal sense). However, as has been indicated in various attitudinal studies, what persons say they will do need not correspond to what they will really do (Marwell and Schmitt 1967). Therefore, the validity of this method of data collection is questionable.

Experimental Interaction Procedure This procedure was initiated by Strodtbeck (1951) who developed a family interaction technique suitable for observing and recording the actual interaction of couples and other familial groupings. In the experiment, spouses are asked to independently complete a questionnaire and then jointly discuss the items they disagree upon and arrive at a family decision. This basic format was called the Revealed Difference Technique (RDT) because each spouse communicates his/her desired utility in joint discussion and the conflicts are revealed. The comparison of the closeness of each spouse's decision to group decision then represents a measurement of the spouse's power (influence) (Strodtbeck 1951).

The major drawbacks of RDT center on the variability of disagreements across couples. Spouses may disagree not only on the number of items but on different items as well. This, without doubt, poses a great complication in data analysis (Olson and Ryder 1970).

Olson and Ryder (1970) developed an Inventory of Marital Conflicts (IMC), purporting to improve upon the Revealed Difference Technique. The basic format of IMC is similar to that of RDT in which spouses individually make a decision and then jointly resolve their difference. The IMC differs from RDT in that IMC comprises a set of structured conflict situations (18 vignettes) so that spouses can agree or disagree on the same pre-selected items. The 18 vignettes represent various types of marital conflicts relevant to couples and the joint discussions of these conflict materials center on two questions: (1) Who is primarily responsible for the disagreement, the husband or wife; and (2) Which of the two mutually exclusive ways of resolving conflict is best? The "win scores" from the data sheets as usual are used to measure power and authority within the family (Blood and Wolfe 1960; Strodtbeck 1951).

The principles underlying both the RDT and IMC are very illuminating: the real spouses reveal their different views about a set of hypothetical (but relevant) decision situations and resolve their conflicts through interaction processes in group discussions. This dissertation, drawing upon the essence of both experimental interaction procedures, will design a conjoint-type experiment in which spouses first independently complete a questionnaire and then get together to discuss and arrive at the family decision by resolving the revealed conflicts over a set of different alternatives.

2.2.3 The Measurement of Power and Influence

Conflict resolution involves an ongoing process of exerting power to influence or get one's way in a dyadic relationship (Kipnis 1976; Tedeschi et al. 1973). The measurement of power and influence thus is fundamental in conflict management research. However, as discussed in the outset, power is elusive in concept and hard to be measured. Given the multidimensional nature of power (McDonald 1980), people have measured power from three corresponding domains: power bases, power processes, and power outcomes.

Power bases in family sociology are built on resources, which contribute to the satisfaction of individual need, and to the attainment of individual or group goals (Wolfe 1959). The family member with greater command of resources is defined as having greater power because "the balance of power (in decision making) will be on the side of the partner who contributes the greatest resources to the marriage" (Blood and Wolfe 1960). Therefore, a typical measure of

power in this area is spousal resources such as income, education, or occupational status (McDonald 1980; Safilio-Rothschild 1970). Given the potential correlation among the above resources, a Social Class Index (SCI) which incorporates income, education, and occupation status into a composite index was used (Rodman 1967, 1972).

This proxy measure of power has been criticized for the varying and inconsistent power bases used (Webster 1997). As a cause measure or formative indicator, it is also subject to many moderating forces, such as cost of power, involvement, decision history, and sex role orientation, which may weaken the effects of various resources on power, thus undermining the reliability and validity of the power measure (Su 1999).

Process measures of power have remained undeveloped. The person with process power is the one whose decision prevails when there is a disagreement (Olson and Rabunsky 1972). Many thus have used various interactional techniques, such as the Revealed Difference Technique (RDT) and Inventory of Marital Conflicts (IMC) as discussed in preceding section, to measure the process power. Broadly speaking, investigations of influence strategies in a conflictual situation belong to process measure of power (Webster 1997). Therefore, this dissertation will adopt a dependency measure of power, given the power-dependency definition in Emerson's (1962) exchange theory.

Emerson (1962) posits that power to control or influence resides in other's dependency. Dependency varies positively with the other's motivational investment to the common goals and inversely with the other's alternatives to the goals outside the relationship. This represents an ongoing power balancing and counter-balancing process between the dyad. Given this specific relationship between power and dependency, El-Ansary and Stern (1972) developed a "sales and profit" approach to measure power in marketing channel. For example, the supplier's power over the dealer is pivotal on (1) the supplier's current contributions to the dealer's sales and profits; (2) the supplier's expected contributions to the dealer's sales and profits in the future; and (3) the availability of alternatives to replace the supplier. This measure of channel power has found a wide use in this area (cf. Frazier and Rody 1992; Frazier and Summers 1986; Kale 1986). In family sociology, Nock (1995) used the percentages of one spouse's income, labor, educational attainment, and occupational prestige in the family amounts to measure the other's dependence on the spouse. An imagined consequence of separation for the spouse is asked to measure the availability of the alternatives to the marriage. Thus this measure gauges the other's perception of the spouse's power in the family.

Outcome measures of power have been popular in consumer behavior and family sociology literature (Cromwell and Olson 1975; Davis 1976). It is posited that the influential spouse in family decision making is the powerful spouse in the family; hence family power can be measured by influence in decision making. Therefore, power is synonymous with influence and the measurement of power is equal to the measurement of influence (Cromwell and Olson 1975).

There are two types of influence measures: self-report measures and outcome measures. Self-report measures of influence rely on spouses' report as to who has more final say or who win in family decision making. These measures, however, are problematic in that they may suffer from

spousal perception bias and report bias (Corfman 1991). Outcome measures of influence always involve group tasks (Corfman and Lehmann 1987; Krishnamurthi 1988: Steckel and O'shaughnessy 1989). Similar to the Revealed Difference Technique (RDT) (Strodtbeck 1951), spouses first independently complete rating a set of products or product alternatives; then they jointly rate these products or product alternatives. The spouses' relative influence then can be inferred from the group ratings because "the closer an individual's preferences are to the joint preferences, the more influence the individual has had on the joint preferences because joint preferences are a result of interaction among group members" (Krishamurthi 1988). Some people thus call these measures the *inferred* measures of influence (Allenby et al. 1995).

Being free of perception bias and report bias, outcome measures of influence are more valid (Corfman 1991). However, it is not measuring power but assertiveness (Szinovacz 1987), because as effect measures they are blind to power processes and subject to various confounding forces that may impede their validity (Su 1999).

2.3 Summary

This chapter begins with a review of multidisciplinary perspectives on dyadic conflict management involving power, influence, and choice of influence strategies. Power is defined as a relational or system property that involves a dyadic process of influence and counterinfluence (cf. Emerson 1962; Lewin 1951), whereas influence strategy is defined as the strategic use of power that involves a set of influence attempts based on benefit/cost considerations of power use. This dissertation focuses on uncovering the process of strategic power use in family decision making in terms of its interactive and dynamic properties.

Social psychology literature on dyadic conflict management provides an important conceptual framework of strategic power use. For example, power and preference intensity, which is defined as the actor's stake in decision outcomes (Coleman 1973), are proposed to be positively related to the use of coercion. In a process of reciprocal power use, actors are less likely to retaliate coercion in kind when costs of coercion are averted (Molm 1997; Tedeschi and Felson 1994). From a dynamic point of view, actors are also less likely to use coercion frequently based on the consideration of justice (Bacharach and Lawler 1981; Molm 1997).

Family sociology literature highlights a set of norms pertaining to power uses in marital exchange processes, such as reciprocity and long-term orientation in marriage. For example, love, which is synonymous with mutual dependence, trust, and tolerance in a lengthy relationship, is proposed to be negatively related to the use of coercion either because the more loving spouse is less powerful (Heer 1963; Foa and Foa 1973; Safilios-Rothschild 1976) or because the more loving spouse is more tolerant or empathic (Kelley 1983). Also, in family power process, couples are more likely to reciprocate cooperative actions but less likely to reciprocate competitive actions such as coercion, in order to avoid conflict spiral or maintain harmony in marriage (Kelley 1983; Raush et al. 1974).

Consumer behavior literature basically echoes the conceptual developments in social psychology and sociology and empirically replicates findings from those disciplines in a family decision context. For example, power and preference intensity are found to be positively related to the use

of power (Corfman and Lehmann 1987; Qualls 1987; Spiro 1983). On the other hand, avoidance of conflict is supposed to underlie the couple's decision process, given the cooperative nature of family decision making (Burns and Granbois 1977; Corfman and Lehmann 1987; Park 1982; Spiro 1983). Noteworthy is the convergent emphasis of justice or equity in family decision making found in several conflict resolution models that shed light on spousal decision behavior adjustment in a sequence of family decisions (Corfman and Lehmann 1987; Davis 1976; Pollay 1968; Sheth 1974).

These conceptual developments can be summarized as the following propositions:

Proposition 1: Actors with more power are more likely to use coercive influence strategies.
Proposition 2: Actors with higher preference intensity for a decision are more likely to use coercive influence strategies.
Proposition 3: Actors are less likely to return coercion in kind in a dyadic relationship, when the costs of coercion are perceived.
Proposition 4: Actors are less likely to frequently use coercion in continual exchange occasions, when the norm of reciprocity is perceived.
Proposition 5: In family power struggle, other thing being equal, the more loving spouse is less powerful.
Proposition 6: In family conflict management, love is negatively related to coercion.
Proposition 7: In family conflict management, the husband's use of coercion is less likely to be returned in kind by the wife and vice versa.
Proposition 8: In family conflict management, the husband's use of non-coercion is more likely to be returned in kind by the wife and vice versa.
Proposition 9: In family decision process, the perception of equity will adjust spouses' use of power in the long run.

The second part of literature review centers on the methodological issues as to power studies across disciplines. First, taxonomies of influence strategy scales and their validity are discussed. Whereas the deductive strategy scales based on the established power theories are stable across situations but of lower construct validity, the inductive strategy scales are situation specific and of lower external validity (Kim and Lee 1996; Nelson 1988). Therefore, consideration of validity may entail the combination of various scales.

Second, methods of data collection are compared in terms of their validity. Laboratory simulations have higher internal validity but are of lower relevancy as to dyadic relationship analysis, especially the family process, because the subjects involved are unrelated or independent (cf. Frazier and Summers 1986). Traditional surveys are flexible and can carry a large sample size, but these methods are impeded by the notorious recall problem and report bias (Corfman 1991). The Revealed Difference Technique (RDT) (Strodtbeck 1951) and the Inventory of Marital Conflicts (IMC) (Olson and Ryder 1970) are enlightening. Both methods involve an individual task and a group task, similar to those in a conjoint design. Thus, they are potent to uncover family interactions if observers or the behavioral self-report questionnaires are properly presented (Olson 1977).

Third, several measures of power and influence are discussed in light of their reliability and validity. Resources as cause measures of power prove to have lower convergent validity if different power bases are used (Webster 1997). Also, cause measures of power may suffer from various moderating forces that weaken the sufficiency of the cause (Su 1999). Process measures of power are under-researched. Power processes involve a series of manifest uses of power or influence strategies. Given the ongoing power-dependency relationship (Emerson 1962), the people's perceptions of mutual dependence in the relationship may prove to be a good measure of process power (Nock 1995). Outcome measures of power are popular in consumer research and family sociology. However, this type of measure, stated and inferred alike, is impotent to measure power because it reveals nothing about the power process, suffers from perception bias and report bias, and is harassed by a variety of confounding forces (Corfman 1991; Cromwell and Olson 1975; Su 1999).

Chapter 3 Conceptual Development

Built on the literature review of dyadic conflict management from a multidisciplinary perspective, this chapter develops a conceptual model of spousal family decision behavior. An accommodative decision context with addition of a set of behavioral assumptions is introduced. A set of hypotheses depicting how spouses choose influence strategies in resolving conflicts is developed.

3.1 Accommodative Family Decision Context

This dissertation views joint family decision making as a two-person accommodative decision process as suggested by Davis (1976). From this perspective, joint family decision making is conceptualized as involving couples whose preferences are irreconcilable, thus the conflict is resolved by means of a variety of influence strategies such as persuasion and bargaining.

Joint family decision making can also be seen as consensual in which family members agree upon the goals or desired outcomes of a decision (Davis 1976). However, in line with the changing sex roles from the traditional marriage to the egalitarian ones, the view of family decision making is changing from a consensual to an accommodative view (Bonfield et al. 1984). It is argued that groups, particularly families, reach decisions quite often by means of bargaining, coercion, and/or compromise rather than problem solving (Blood 1960; Bonfield et al. 1984; Davis 1976; Scanzoni 1979; Sprey 1969; Weick 1971). Therefore, this research focuses on accommodative decision processes and leaves out the "spontaneous consensus" in joint family decision making (Qualls 1987).

An accommodative family decision process differs from individual decision making and other group decision processes, in that spouses are faced with different personal preferences and have higher degree of interdependence in a long-term marital relationship. According to Davis (1976), an accommodative family decision process may involve power, preference discrepancy or conflict, decision strategies, family bond, and equity. Joint family decision making, given the revealed conflict, represents itself as a series of concerted, interdependent actions in which spouses choose different decision strategies to get their way. Note that accommodative decisions cannot be satisfactory to both spouses (Davis 1976). This implies that one spouse may use persuasion (e.g., coercion) or bargaining (e.g., non-coercion) to get his/her way, while the other may compromise or simply make a concession. This is comparable to the bargaining process of a cooperative game (Nash 1953).

Given the accommodative family decision making context, several assumptions pertaining to spousal decision behavior in family process should be specified. The first set of assumptions pertains to the nature of conflict management in family decision making. Sprey (1969, 1975) defines the family as a system of conflict. Spiro (1983) finds 88% of her sample disagree over a recent purchase of a major durable. Given the awareness of conflict by both spouses, there have been two opposite assumptions about conflict management in family decision making. The one assumption emphasizes the avoidance of conflict inherent in spousal decision behaviors. For example, Granbois (1971) proposes concession, sequential compromise, half-way compromise,

creative compromise, and arbitrary criteria as possible conflict resolution modes. Park (1982) suggests a set of conflict-avoiding heuristics such as identifying common preference levels on salient objective dimensions, task specialization, and concession, given preference differences. Conversely, the other assumption stresses the conflictual nature of family decision making. It is proposed that joint family decision making frequently involves conflict, manifest and latent alike, and a final decision can be reached only after the conflict is resolved (Qualls 1987; Sheth 1974). Accordingly, conflict management in family decision making is more confrontational and less yielding. For example, Davis (1976) in his accommodative decision model suggests persuasion (by means of influencing or forcing) and bargaining (involving compromises) as two basic modes of conflict resolution. Sheth (1974) adds politics as one of the major modes of conflict resolution that involves some tough strategies such as coalition and isolation.

This dissertation tries to combine these two assumptions by presupposing that given the conflict spouses will first pursue their own goals while at the same time dealing with their partners' desires. This is predicated on a rather complex and unstructured joint household decision condition in which spouses disagree by pursuing their preference and simultaneously avoiding hot disputes, running the risk of negatively and persistently affecting the marital relationship (Buss and Schaninger 1982; Kirchler 1990, 1993; Park 1982; Spiro 1983). Consequently, both types of conflict resolution modes--avoidance of conflict (spiral) and conflict confrontation are possible to be used in resolving preference disparity in joint family decision making. Thomas (1976, 1978) classified conflict resolution behaviors into two types: assertiveness and cooperativeness. Assertiveness is defined as an attempt to satisfy one's own needs, using competitive or coercive strategies, while cooperativeness is the attempt to satisfy the other person's needs by means of cooperative strategies such as collaboration and compromise. This classification of power strategies has been expected to be more appropriate for a household context where mutual caring can be assumed (Bonfield et al. 1984). The present research adopts this dichotomy and classifies influence strategies in family decision making into coercive influence strategies (including punishments and threats) and non-coercive strategies (including rewards, manipulation, and persuasion). In social psychology, game theory, and marketing channel literature, this coercion vs. non-coercion classification of power strategies has been instrumental in studying dyadic interactions (cf. Frazier and Summers 1986; Luce and Raiffa 1957; Molm 1997).

The second set of assumptions involves a specific set of rules that specify what constitutes individual "rationality" in a family exchange process. We assume that spouses with relevant information can have consistent and transitive preferences (Ben-Akvia and Lerman 1985). As such, spouses are assumed to make optimal decisions germane to their psychological characteristics--they do not choose tactics randomly, but as Raven (1974) noted, choose tactics most likely to lead to successful influence. Specifically, in an accommodative family decision context, spouses are first assumed to be power conscious (Blood and Wolfe 1960; Cromwell and Olson 1975; Davis 1976). Spouses perceive their power advantages (disadvantages) relative to their partners. Greater family power bases such as income and occupation privilege are associated with less dependency and greater capability to mediate rewards or punishments. Therefore, the more powerful spouses will have more liberty in choose appropriate influence strategies to get their way.

Second, spouses are assumed to be preference oriented (Davis 1976; Menasco and Curry 1989; Qualls 1987; Sheth 1974). The more intense the individual preference toward the decision outcome, the stronger the motivation to be involved and thus to win (Coleman 1966; Corfman and Lehmann 1987). This implies that the intensity of preference will affect spousal decision behavior.

Third, spouses are assumed to commit to the long-term marital relationship (Collins 1988; Davis 1976; Kelley 1983; Safilios-Rothschild 1976; Sprey 1971). Sprey (1971) defines the family as a bonding unit that unites specific people of interdependence and is instrumental in the processes of establishing and maintaining stable patterns of marital interaction. Note that a marital relationship is different from any other dyadic exchange relationships such as buyer-seller relationship in marketing channel, in that the husband and wife alike are faced with much limited alternatives to their marriage and their "exist costs" are relatively higher (Nock 1995). Collins (1988) and Kelley (1983) explicitly suggest that family bond is sustained by love and commitment in a lengthy marital relationship. Loving is tolerating and empathic, more caring about the other spouse's interest. Within a family exchange process, Walster and Walster (1978) advance an equity theory of love that advocates "fair exchange" between spouses. Fair exchange occurs when what he/she is getting is a reflection of what he/she has given; perceived departure from the balanced point, e.g., asymmetrical power uses, will induce an equity-restoring process (Walster et al. 1978). In sum, family bond is assumed to be sustained by love, commitment, and equity.

3.2 Hypotheses

The following hypotheses are consequences of those propositions when applied to the above accommodative family decision context. The conceptual development as to spousal family decision behavior centers around power, preference intensity, love, reciprocity, and equity that characterize family processes (Davis 1976). Given the process of household conflict resolution in which spouses may be both assertive and cooperative, the dependent variable is spousal coercion propensity. Thus, the following hypotheses capture the extent of why and how spouses will be more assertive or cooperative in family decision making, contingent on their psychological characteristics and marital norms.

3.2.1 Power and Spousal Influence Strategy Choice Behavior

Proposition 1 predicts that actors with more power are more likely to use coercive influence strategies. Power here is conceptualized as the ability to influence. Because of the power advantage, the more powerful actors may act opportunistically to take advantage of their partners in order to gain a disproportional share of interests from their exchange (Bannister 1969). Empirical studies mostly from social psychology, economics, and operations research supported this prediction (cf. Dwyer and Walker 1981; Molm 1997; Roering 1977; Rubin and Brown 1975; Smith and Leginski 1970).

Note that these findings were based mainly on laboratory settings in which the subjects are unrelated or independent of each other (cf. Rubin and Brown 1975). Thus, the subjects lack concerns about both the cost of power and stake of the outcome. For this reason, many authors challenged the positive correlation between power and coercion derived from laboratory studies

by positing that power, in a durable relationship such as a channel relationship, may be negatively related to coercion (Blau 1964; Frazier and Rody 1991; Frazier and Summer 1986; Stern 1969). A desire to exploit through coercion is likely to be tempered by the fear of future retaliation because the relative power of the two parties may shift over time. Additionally, coercion is of limited effectiveness when channel members have multiple alternatives (Frazier and Rody 1991), as Bacharach and Lawler (1980, p.77) state, "Coercion potential is limited by the other's alternatives." (also see Pfeffer and Salancik 1978). This is the famous power-coercion controversy.

It should be pointed out that a marital relationship, as mentioned above, is different from other dyadic relationships such as a channel relationship in which both the seller and buyer have more alternatives to the existing relationship. In a marital relationship, spouses are tied to each other because of the higher cost to exit (Backer 1960; Kelley 1978; Nock 1995). The marriage is a more stable and lengthy relationship (Collins 1988). As such, retaliation in a marriage is constrained by both its perceived negative consequences (e.g., conflict spiral) to the marriage and more specialized norm development (e.g., empathy) (Hays 1985; Homans 1974). Consequently, coercion may well be of higher effectiveness in family interactions because of the lower likelihood of retaliation and higher exit barrier to the marriage. Thus, in a power-dependency relationship (Emerson 1962), the more powerful spouse will perceive lower cost and higher benefits (i.e., higher effectiveness) to use power because he/she is less dependent on the relationship. On the other hand, given the limited alternatives to the marriage, the weaker spouse will have little chance to use power balancing strategies such as reducing motivational investment or cultivating alternative sources for personal happiness (Emerson 1962), thus further lowering the more powerful spouse's cost of using power. So, we can safely speculate that in a marital relationship the more powerful spouse is more likely to use coercion because of his/her higher SEU of using power. Alternatively, marital power is positively related to the use of coercion in a probabilistic sense.

Within an accommodative decision context in particular, decision outcomes cannot be satisfactory to both spouses because of the incompatible preferences (Davis 1976). Given the decision rule that each spouse will first follow his or her own preferred alternative in accommodative decision making (enhancing one's own utility) (Kirchler 1990; Park 1982), the more powerful spouse is more likely to reinforce his/her preference by using coercive actions. That is, the spouse with more power in the family has the higher probability of using coercion than non-coercion in getting his/her way. Therefore, we hypothesize that in joint family decision making

H1a: The wife's power is positively related to her propensity to use coercive influence strategies.

H1b: The Husband's power is positively related to his propensity to use coercive influence strategies.

3.2.2 Preference Intensity and Spousal Influence Strategy Choice Behavior

As proposition 2 predicts, preference intensity in a conflictual situation is positively related to the use of coercion. A series of experimental studies from social psychology consistently show that

the relative preference is positively related to the use of coercive influence strategies. Because preference discrepancy may intensify or prolong the conflict, and non-coercive strategies take more time to implement effectively (Frazier and Summers 1984), the actors are tempted to increase the frequency of using coercive and competitive strategies (Axelrod 1967; Bacharach and Lawler 1981; Deutsch 1973; Goodstadt and Kipnis 1970; Tedeschi and Felson 1994; Tedeschi and Lindskold 1976).

An accommodative decision represents a conflict resolution process in which satisfaction is scarce due to the irreconcilable preferences between the couple (Davis 1976). The spouse with stronger preference toward the decision outcome is tougher to give in because of his/her perception of greater dissatisfaction thus produced. Hence he/she tends to push more strongly in the negotiation to pursue his/her preferred alternative, while the spouse with weaker stake in the decision outcome is more inclined to make a tactical concession (Bacharach and Lawler 1981). This is consistent with Corfman and Lehmann's (1987) finding that the spouse with stronger preference is more likely to use destructive power (coercion). Therefore, we hypothesize that in joint family decision making

H2a: The wife's preference intensity is positively related to her propensity to use coercive influence strategies.

H2b: The husband's preference intensity is positively related to his propensity to use coercive influence strategies.

3.2.3 Love and Spousal Influence Strategy Choice Behavior

Love as emotional dependence is supposed to underlie family life especially the marriage (Collins 1988). Love is synonymous with tolerance and empathy (Kelley 1983). A more loving spouse is more understanding and more willing to forgo his/her interests in response to the other spouse's need. On the other hand, the spouse more in love tends to perceive fewer viable alternatives to the marriage with the beloved one, hence is more dependent on the latter and more anxious to maintain the marital relationship (Safilios-Rothschild 1976). Consequently, the more loving spouse is less powerful and more tolerant to the other's exploiting behavior such as aggression and coercion (Blalock and Wilkin 1979). Limited empirical studies provided evidence in supporting proposition 6 that love is negatively related to coercion. For example, Foa and Foa (1973, 1974) found that the spouse desiring love to a greater degree is more likely to conform by exchanging his/her status (e.g., as the decision maker) for love. Safilios-Rothschild (1976) found that the less loving spouse made more important decisions. Godwin and Scanzoni (1989) hypothesized and empirically confirmed that husband and wife's coerciveness will be lower when his/her level of love and caring are higher.

In an accommodative decision making, the decision outcome may be satisfactory to only one spouse (Davis 1976). In other words, it is likely that only one spouse can get his/her way. Who will conform? Or who will push strongly? It is more likely that, according to the above arguments, the more loving spouse will conform while letting his/her spouse get his/her way. In other words, because the spouse more in love is less powerful or cares more about the marriage

than the decision outcome, he/she is less likely to use coercion to get his/her way, as Hypothesis 1 predicts. Therefore, we hypothesize that in joint family decision making

H3a: The wife's love is negatively related to her propensity to use coercive influence strategies.
H3b: The husband's love is negatively related to his propensity to use coercive influence strategies.

3.2.4 Reciprocity and Spousal Influence Strategy Choice Behavior

Proposition 3 predicts that loss averse actors are less likely to initiate coercion or return coercion in kind in a dyadic relationship. Coercion may invite coercion in retaliation, leading to conflict spiral; therefore, fear of retaliation leads to deterrence of coercion (Bacharach and Lawler 1981). In a marital relationship, proposition 7 predicts that one spouse's use of coercion is less likely to be returned by the other, because retaliation of coercion may intensify conflict and damage the marriage. Instead, a demand/withdraw interaction is more likely in which one spouse attempts to engage in a conflict by using coercive actions such as blaming criticizing, or pressure, while the other tends to avoid conflict and withdraw from the interaction (Christensen 1987, 1988; Heavey et al. 1993, 1995; Kelley et al. 1978; Rauch et al. 1974).

Given the revealed conflict in an accommodative decision, spouses are likely to perceive the costs associated with the conflict resolution. As hypothesized above, spouses who are more powerful, with higher preference intensity or less loving are more likely to use coercion. As such, the costs of retaliating coercion in kind on the part of the weaker defender will be higher, because he/she is less likely to win and more vulnerable to ensuing threats and punishments (Blood and Wolfe 1960; Safilios-Rothschild 1976). Consequently, the coerced spouse may either make a tactical concession by giving up control over those decisions of little interests for more control over those of greater interests, for example, the spouse who has lower preference intensity (Bacharach and Lawler 1981); or simply yield the way, for example, the spouse who is less powerful or who is more loving (Coleman 1966; Davis 1976). Several empirical studies in consumer research have found that avoidance of conflict is an effective strategy for spouses to avoid heated argument or emotional hurt in family decision making (Park 1982; Raush et al. 1974; Spiro 1983). In sum, in joint family decision making, when coercion is initialed, the husband / wife is less likely to return coercive actions in kind in order to avoid conflict spiral or protect the marriage. Therefore, we hypothesize that in joint family decision making

H4a: The wife tends not to reciprocate the husband's using coercive influence strategies.
H4b: The husband tends not to reciprocate the wife's using coercive influence strategies.

3.2.5 Equity and Spousal Influence Strategy Choice Behavior

Blau (1964) believes that coercion is an unfair rule because it violates the principles of exchange and neglects others' needs. Molm (1997) suggests that threats or punishments are perceived to be more unfair than withholding of rewards, because people avert losses to a greater extent than they seek gains. Departure from equity may set in motion the equity-restoring process (Walster

and Walster 1978) or lead to the withdrawal from the relationship such as reducing motivational investment and cultivating other alternatives (Emerson 1962). Therefore, the use, especially the frequent uses, of coercion will add to the costs of conflict resolution due to the violation of equity in a dyadic relationship. Consequently, as proposition 4 predicts, justice conscious actors are less likely to use coercion frequently in continual exchange occasions such as the marriage.

Models of family conflict resolution stress the concept of equity or overall fairness in spousal exchanges because of the ongoing nature of family interactions (Corfman and Lehmann 1987; Davis 1976; Pollay 1968; Sheth 1974). In particular, Corfman and Lehmann (1987) found that decision history tends to adjust spouses' power behavior in a sequence of purchase decisions, because for those who "won" more frequently in the past, it will be more costly to their sense of fairness to exert influence of any kind. In this vein, we envisage that spouses will refrain from frequently using coercion in a sequence of accommodative decision making, because frequently building one's own utility on the other's dissatisfaction will violate the norm of equity and eventually dissolute the commitment to the decision (Davis 1976).

H5a: In a sequence of family decision making, the wife who used more coercion in the past tends to use less coercion currently.
H5b: In a sequence of family decision making, the husband who used more coercion in the past tends to use less coercion currently.

3.2.6 Moderation of Love on Power and Preference Intensity

It is easy to see that a spouse more in love would tend to use less power because he/she either is less powerful or more empathic (cf. Kelley 1983; Nock 1995; Safilios-Rothschild 1976). Therefore, we hypothesize the interactions among love, power, and preference intensity in terms of their effects on spousal influence strategy choice behavior in joint family decision making.

H6: Love tends to moderate the effect of power on spousal coercion propensity in joint family decision making.
H7: Love tends to moderate the effect of preference intensity on spousal coercion propensity in joint family decision making.

3.2.7 Effectiveness of Coercive Influence Strategies

Effectiveness of influence strategies refers to changes in behaviors or attitudes or both of the target person (Kelman 1961). There have been very limited studies specifically investigating the efficacy of various influence strategies in conflict resolution. A general proposition is that coercive influence strategies (e.g., threats and punishments) are less effective than non-coercive strategies (e.g., rational reasoning, task competence, manipulation) (Bhatnagar 1993; Yulk and Falbe 1991; Yukl and Tracey 1992).

There has been no study looking at the effectiveness of influence strategies in a family decision context, however. Given the marital relationship between couples, we may advance a different proposition from the one derived from other social contexts such as organizational relationships or marketing channel dyads. First, the high dependency between spouses may suggest that coercive influence strategies are more effective in getting one's way. As Bacharach and Lawler

(1980) point out, "Coercive potential is limited by the other's alternatives." Coercion in, say, channel dyads is ineffective because channel members have multiple alternatives. People can avoid the punishments of non-compliance by exiting from the relationship. Yet in a familial context, the costs of exit are high and retaliation of coercion may lead only to damage the marriage. Therefore, spouses generally remain loyal to the marriage and choose to tolerate coercion rather than exit (Heirschman 1970), at least for a period of time.

Second, an assessment of strategy effectiveness requires considerations of both the short- and the long-term consequences (French and Raven 1959). Coercive strategies may be effective in the short run through the use of power. For example, a wife may threaten to be on strike on cooking or child caring and thus get her way through her husband's compliance. However, the continual use of coercion may undermine spouses' power bases, particularly his/her referent power, and thus may decrease spouses' ability to influence their partners' behavior in the long run (French and Raven 1959; Raven and Kruglanski 1970). Only in this sense we propose that spouses' decision history affect their decision behaviors over a period of time. In a sequence of decisions, coercion correlates positively with compliance. That is, spouses who used too much power in the past tend to use less power currently in order to maintain an overall fairness (Corfman and Lehmann 1987). Therefore, we hypothesize that in joint family decision making

H8: Coercive influence strategies are more effective than non-coercive influence strategies.

3.2.8 Satisfaction toward the Outcome and Process of Decision

Satisfaction/dissatisfaction toward the outcome and process of family decision making represents an important factor predicting the spouses' subsequent decision behavior (Spiro 1983; Szinovacz 1987). For example, Gottman (1979) found that nondistressed couples were more cooperative and less likely to reciprocate a negative act such as coercion. It is not hard to imagine that a spouse who has had more influence in terms of the decision outcome is more satisfied (Park 1982), since the primary purpose of exerting power is to achieve the desired outcomes (Szinovacz 1987). However, a spouse who used coercive strategies to get his/her way will be less satisfied with the decision process, because he/she may have consumed too much emotion or accumulated new "utility debt" to the other (Marwell and Schmitt 1967; Pollay 1968). Therefore, the spouse who used coercion to get his/her way may be more cooperative in the subsequent decision in order to maintain an overall fairness in the marital relationship (Szinovacz 1987). Thus, it is of managerial interest to hypothesize that in joint family decision making

H9: Spouses who used coercive influence strategies to get their way are satisfied with the decision outcome.

H10: Spouses who used coercive influence strategies to get their way are dissatisfied with the decision process.

3.3 Summary

The above hypotheses regarding spousal influence strategy choice behavior in joint family decision making are summarized in Figure 1. Note that these hypotheses can be similarly made with non-coercive influence strategies, given the dichotomy of coercion and non-coercion. For

example, it can be hypothesized that power and preference intensity are negatively related to spousal cooperation propensity (Dwyer and Walker 1981; Wilkinson and Kipnis 1978). Love is positively related to spousal cooperation propensity (Godwin and Scanzoni 1989; Kelly 1983; Nock 1995). In family interactions, spouses are more likely to replicate cooperative actions (Kelly 1983; Homans 1974). Also, in a sequence of decisions, spousal corperativeness in past conflict is positively related to his/her current corperativeness (Godwin and Scanzoni 1989).

This conceptual model is in concert with Bacharach and Lawler's (1981) tactical bargaining framework in which bargaining tactics are viewed as the intervening link between potential bargaining power and bargaining outcomes. Specifically, a systematic analysis of bargaining power requires (1) identifying the multiple dimensions constituting each party's potential bargaining power; (2) identifying the major types of bargaining tactics; (3) showing how the dimensions of bargaining power affect tactical action; (4) showing how tactical action can alter bargaining power; (5) examining the conditions under which given tactics affect the bargaining outcomes; and (6) examining how outcomes at any given time affect potential power at later time (Bacharach and Lawler's 1981). This dissertation highlights the dynamic of bargaining power and tactics in a family decision context and extends the dimensions of power to include "the power to refrain from action" (Alderson 1957, p. 140). Implicitly, this refrainment from power use characterizes marital interactions and a long-term orientation in the marriage (Kelley 1983).

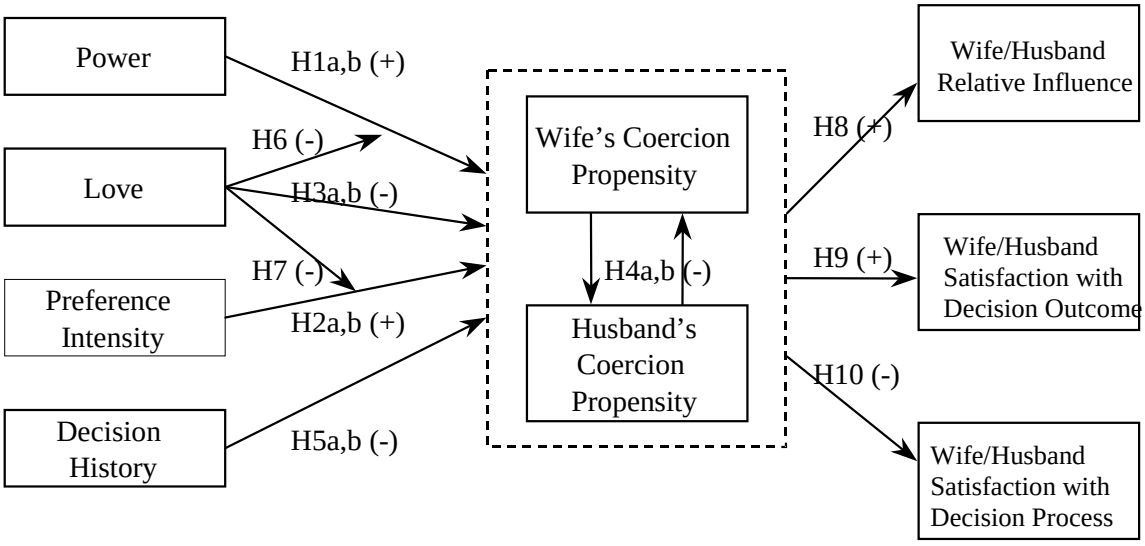

Figure 3.1: A Conceptual Framework of Spousal Influence Strategy Choice Behavior

Chapter 4 Model Specifications And Methodology

This chapter deals with model specifications and methodology for implementing the model. A dynamic simultaneous equations model with autocorrelated error terms is specified. The methodology encompasses the research design, sample, procedures, research instruments, and measures.

4.1 A Dynamic Simultaneous Equations Model (DSE)

This dissertation aims to model three sets of relationships pertaining to spousal family decision behavior: (1) the dependence of influence strategy choices on spousal psychological characteristics; (2) the associations between spouses' choices of influence strategies; and (3) the autocorrelation among individual spouses' choices of strategies in a sequence of decisions. In other words, joint family decision making is conceptualized as an ongoing interactive process between couples and can be modeled as such using a dynamic simultaneous equations model as developed by Amemiya (1966)

$$\begin{aligned} Y_{wt} &= \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 Y_{ht} + \mu_{wt} \\ Y_{ht} &= \alpha_0 + \alpha_1 X_{4t} + \alpha_2 X_{5t} + \alpha_3 X_{6t} + \alpha_4 Y_{wt} + \mu_{ht} \end{aligned} \qquad (1)$$

with error terms generated by a first-order autoregressive process AR(1)

$$\begin{aligned} \mu_{wt} &= \rho_w \mu_{w\,t-1} + \varepsilon_{wt} \\ \mu_{ht} &= \rho_h \mu_{h\,t-1} + \varepsilon_{ht} \end{aligned} \qquad (2)$$

$$|\rho_w| < 1; \quad |\rho_h| < 1$$

Where $Y_{wt} = (y_{wt1}, y_{wt2}, \ldots, y_{wtn})$ are wives' coercion propensity scores which are measured by the difference of wives' coercion mean score and non-coercion mean score. $Y_{ht} = (y_{ht1}, y_{ht2}, \ldots, y_{htn})$ are husbands' coercion propensity scores which are measured by the difference of husbands' coercion mean score and non-coercion mean score. $\varepsilon_{wt} \sim N(0, \sigma_w)$ and $\varepsilon_{ht} \sim N(0, \sigma_h)$.

$X_{1t} = (X_{1t1}, X_{1t2}, \ldots, X_{1tn})$ are wives' power scores
$X_{2t} = (X_{2t1}, X_{2t2}, \ldots, X_{2tn})$ are wives' preferences scores
$X_{3t} = (X_{3t1}, X_{3t2}, \ldots, X_{3tn})$ are wives' love scores
$X_{4t} = (X_{4t1}, X_{4t2}, \ldots, X_{4tn})$ are husbands' power scores
$X_{5t} = (X_{5t1}, X_{5t2}, \ldots, X_{5tn})$ are husbands' preferences scores
$X_{6t} = (X_{6t1}, X_{6t2}, \ldots, X_{6tn})$ are husbands' love scores

Where n=91 is sample size; indexes w and h stand for the wife and husband, respectively; t=1, 2, 3 indexes the order of decision occasions.

Obviously, we are faced with a combination of the problems of simultaneity and autocorrelation. Given that the model is over-identified, a two-stage least squares approach combined with the Cochrane-Orcutt two-step method, or as it is called, the autoregressive two-stage least squares (A2SLS), will be used to obtain consistent estimates of the model (Stewart and Wallis 1981). The specific procedures for the estimations of the two equations in the simultaneous model by A2SLS are as follows:

(i) Using all the exogenous variables in the model as instruments, regress $Y_{w\,t}$ and $Y_{h\,t}$ on $\{X_{1\,t,} X_{2\,t,} X_{3\,t,} X_{4\,t,} X_{5\,t,} X_{6\,t}\}$, respectively, in order to obtain their predicted values $Y'_{w\,t}$ and $Y'_{h\,t}$. Then, in the second stage estimate by OLS again

$$\begin{aligned} Y_{w\,t} &= \beta_0 + \beta_1 X_{1\,t} + \beta_2 X_{2\,t} + \beta_3 X_{3\,t} + \beta_4 Y'_{h\,t} + \mu^*_{w\,t} \\ Y_{h\,t} &= \alpha_0 + \alpha_1 X_{4\,t} + \alpha_2 X_{5\,t} + \alpha_3 X_{6\,t} + \alpha_4 Y'_{w\,t} + \mu^*_{h\,t} \end{aligned} \tag{3}$$

Where $\mu^*_{w\,t}$ and $\mu^*_{h\,t}$ are the residuals from the two reduced form equations, and uncorrelated with $Y'_{h\,t}$ and $Y'_{w\,t}$, respectively.

(ii) Given the consistent estimates of $\beta_{0,} \beta_{1,} \beta_{2,} \beta_{3,} \beta_4$ and $\alpha_{0,} \alpha_{1,} \alpha_{2,} \alpha_{3,} \alpha_{4,}$ namely, $\beta'_{0,} \beta'_{1,} \beta'_{2,} \beta'_{3,} \beta'_4$ and $\alpha'_{0,} \alpha'_{1,} \alpha'_{2,} \alpha'_{3,} \alpha'_{4,}$ estimate ρ_w and ρ_h respectively by

$$\rho'_w = \frac{\sum_{t=2} e_{w\,t} e_{w\,t-1}}{\sum_{t=2} e^2_{w\,t-1}} \tag{4}$$

$$\rho'_h = \frac{\sum_{t=2} e_{h\,t} e_{h\,t-1}}{\sum_{t=2} e^2_{h\,t-1}} \tag{5}$$

where

$$\begin{aligned} e_{w\,t} &= Y_{w\,t} - \beta'_0 - \beta'_1 X_{1\,t} - \beta'_2 X_{2\,t} - \beta'_3 X_{3\,t} - \beta'_4 Y_{h\,t} \\ e_{h\,t} &= Y_{h\,t} - \alpha'_0 + \alpha'_1 X_{4\,t} + \alpha'_2 X_{5\,t} + \alpha'_3 X_{6\,t} + \alpha'_4 Y_{w\,t} \end{aligned}$$

(iii) Transform the variables in the two equations using the above ρ_w and ρ_h estimates, that is, transform both equations in the model to ones with a serially independent error term by lagging, multiplying through by ρ'_w or ρ'_h and subtracting from the original two equations to give

$$\begin{aligned} Y_{w\,t} - \rho'_w Y_{w\,t-1} &= \beta_0 (1 - \rho'_w) + \beta_1 (X_{1\,t} - \rho'_w X_{1\,t-1}) + \beta_2 (X_{2\,t} - \rho'_w X_{2\,t-1}) \\ &\quad + \beta_3 (X_{3\,t} - \rho'_w X_{3\,t-1}) + \beta_4 (Y_{h\,t} - \rho'_w Y_{h\,t-1}) + \varepsilon_{w\,t} \end{aligned} \tag{6}$$

$$\begin{aligned} Y_{h\,t} - \rho'_h Y_{h\,t-1} &= \alpha_0 (1 - \rho'_h) + \alpha_1 (X4_{t} - \rho'_h X_{4\,t-1}) + \alpha_2 (X_{5\,t} - \rho'_h X_{5\,t-1}) \\ &\quad + \alpha_3 (X_{6\,t} - \rho'_h X_{6\,t-1}) + \alpha_4 (Y_{w\,t} - \rho'_h Y_{w\,t-1}) + \varepsilon_{h\,t} \end{aligned} \tag{7}$$

Note that $(Y_{h\,t} - \rho'_w Y_{h\,t-1})$ and $(Y_{w\,t} - \rho'_h Y_{w\,t-1})$ in the above two equations are still correlated with $\varepsilon_{w\,t}$ and $\varepsilon_{h\,t}$, respectively. The two-stage least squares method at this moment involves first obtaining predictions of $(Y_{h\,t} - \rho'_w Y_{h\,t-1})$ and $(Y_{w\,t} - \rho'_h Y_{w\,t-1})$ by regressing them on the instrument set $\{Y_{w\,t-1}, Y_{h\,t-1}, X_{1\,t}, X_{2\,t}, X_{3\,t}, X_{4\,t}, X_{5\,t}, X_{6\,t}, X_{1\,t-1}, X_{2\,t-1}, X_{3\,t-1}, X_{4\,t-1}, X_{5\,t-1}, X_{6\,t-1}\}$, respectively. Call them $Y'^*_{w\,t}$ and $Y'^*_{h\,t}$. The second stage involves using OLS to estimate the transformed equations with $(Y_{h\,t} - \rho'_w Y_{h\,t-1})$ and $(Y_{w\,t} - \rho'_h Y_{w\,t-1})$ replaced by their predictions, i.e., we estimate by OLS

$$Y_{w\,t} - \rho'_w Y_{w\,t-1} = \beta_0 (1 - \rho'_w) + \beta_1 (X_{1\,t} - \rho'_w X_{1\,t-1}) + \beta_2 (X_{2\,t} - \rho'_w X_{2\,t-1}) + \beta_3 (X_{3\,t} - \rho'_w X_{3\,t-1}) + \beta_4 Y'^*_{h\,t} + \text{error term}_w \quad (8)$$

$$Y_{h\,t} - \rho'_h Y_{h\,t-1} = \alpha_0 (1 - \rho'_h) + \alpha_1 (X_{4\,t} - \rho'_h X_{4\,t-1}) + \alpha_2 (X_{5\,t} - \rho'_h X_{5\,t-1}) + \alpha_3 (X_{6\,t} - \rho'_h X_{6\,t-1}) + \alpha_4 Y'^*_{w\,t} + \text{error term}_h \quad (9)$$

4.2 Methodology

Given the statistical models, this section discusses in detail the research design, influence strategy scale development, and construct measures.

4.2.1 Research Design

Enlightened by the Revealed Difference Technique (RDT) (Strodtbeck 1951) and Inventory of Marital Conflicts (IMC) (Olson and Ryder 1970), this dissertation used a conjoint design to capture the interactions and dynamics embedded in joint family decision making. Specifically, a set of hypothetical decision scenarios was designed. In each scenario, several alternatives combining different attributes were given. Subjects were supposed to first independently rate each alternative according to their preference, and then get together to jointly rate the same set of the alternatives and decide on an optimal alternative as the family decision. The procedures and their order followed those in RDT and IMC or a typical conjoint design (cf. Allenby et al. 1995). During the process, spouses reveal their preferences by first expressing their ratings of the alternatives to each other in group discussion (Olson and Ryder 1970; Strodtbeck 1951). It is very likely that spouses have different ratings for each alternative based on their idiosyncratic preferences or tastes. Otherwise, the decision will be considered consensus (Davis 1976) and will not be included for analysis. Given the revealed differences in spousal preferences or utilities, spouses were supposed to reach a joint decision as to which alternative to choose through discussion. This process inevitably involves accommodations in which spouses get their way by influencing the other toward their preferred alternative (Davis 1976; Kirchler 1993; Olson and Ryder 1970; Strodtbeck 1951). According to Krishamurthi (1988), "the closer an individual's preferences are to the joint preferences, the more influence the individual has had on the joint preferences because joint preferences are a result of interaction among group members." Obviously, the static input-output model is blind to this interaction process between couples in joint family decision making (Brinberg and Shwenk 1985). One of the primary purposes of this dissertation is to uncover this spousal interaction process.

In order to capture decision dynamics in which the "carry-over" effects of decision history may affect spouses' subsequent decision behaviors (Corfman and Lehmann 1987; Polley 1968), spouses were supposed to complete rating and discussing several decision scenarios in a

sequence (Olson and Ryder 1970). This is contrary to a typical conjoint design in which only one decision scenario is selected.

Right after the subjects completed a sequence of decision scenarios following the above procedures, they were given a separate questionnaire in which they were supposed to answer "how had they got their way" in the several decisions they just completed, such as winning by persuading (e.g., coercing or criticizing) the other to agree on his/her preferred alternative, reaching a compromise (e.g., the group rating lies between the spouses' ratings, or simply yielding (e.g., letting the other get his/her way). An inductive influence strategy scale was used. The scale included 12 specific power strategies which can be classified into coercive strategies and non-coercive strategies based on whether spouses use the strategies to satisfy only ones' own personal preferences (Qualls 1988). Subjects were supposed to indicate how they agree they had used each of the specific power strategies in the group discussions, using a 7-point Likert scale with 1=strongly disagree and 7=strongly agree. Subjects indicated their decision behaviors using this influence strategy scale for the sequence of decision scenarios. Their scores on the scale were then used to create a dependent variable measured on the difference of coercive mean scores and non-coercive mean scores that captures spousal coercion propensity in joint family decision making. Several other scales were used to measure the other dependent and independent variables, such as power, love, relative influence, and satisfaction, as will be discussed in the following sections.

It can be seen that a conjoint design is well suited for this simultaneous equations model in terms of its natural interactive and dynamic patterns (without observers present). However, as an experimental design with hypothetical decision scenarios, several issues have to be handled to ensure the validity of the study. These issues may include the relevancy of decision topics which relate to subjects' involvement in the study (Olson and Ryder 1970), influence strategy scale development which relates to construct validity (Nelson 1988), and questionnaire length which relates to response rates and the quality of response (Lenk et al. 1996). We will discuss the first issue shortly and in what follows the sample section, we will discuss the other two issues.

A key issue as to a workable conjoint design in a family setting is to select one or several decision topics that contain a broad set of distinct attributes and that would induce a high degree of involvement for both spouses (Madrigal and Miller 1996). Three decision scenarios pertaining to a family vacation, a family dinner-out, and a family music event were designed. Therefore, three decisions were related and can be thought of as a sequence of decisions. According to past research practice, family vacation decision as a major household decision may involve high spousal stakes (Filitrault and Ritchie 1981). Furthermore, the judgment of a family activity such as the quality of destination or entertainment type is idiosyncratically associated with individual preferences or self-image (Sirgy and Su 1999); hence, it is less likely to have a set of alternatives that dominate the other choices, say, with high quality and low price (Allenby et al. 1995). Consequently, for each alternative, spouses' utility functions are more likely to diverge, which leads to higher motivation to influence.

4.2.2 The Sample

One hundred and fifty two couples from a large eastern university participated in the study. Sampling procedures are as follows. Potential subjects (1000 randomly sampled) were first contacted by an e-mail message that gave a description of the study and solicited subjects' marital status. After confirming subjects' consent and qualification to participate in the research, a package of questionnaires was mailed to each participating couple. The package contained an introduction letter from Dr. Edward F. Fern, the Chairperson of this committee, a postage pre-paid reply envelope, a questionnaire for the wife, a questionnaire for the husband, and a questionnaire for the couple itself. In order to increase the response rate, a first follow-up e-mail message was sent out one week later, explaining that the approval of using human subjects had been granted by the University authority and that six lotteries promising a tangible chance to win several free family activities would be set up. After four weeks from the initial mail, the second follow-up message was sent, reminding the remaining subjects of the importance to return the questionnaires.

After a pre-established cutoff date (six weeks later), potential nonresponse biases were examined by contacting a subsample of the nonrespondents. The data revealed no significant difference between the respondents and nonrespondents in terms of their characteristics. Also, there was no systematic difference between earlier respondents and later respondents. The major reason for the nonresponse might be due to family vacation in the summer season.

4.2.3 Development of Influence Strategy Scale

This section deals with two questions: developing a workable power strategy scale and classifying the scale according to the coercion vs. non-coercion dichotomy. The first question concerns the validity of the scale that relates to the way of deriving the scales such as deductive scales or inductive scales (Nelson 1988). The second question pertains to the primary purpose of the present research. The coercion vs. non-coercion perspective may facilitate the investigation of interaction process between couples in joint family decision making (Frazier and Summer 1984; Frazier and Rody 1992; Molm 1997; Tedeschi et al. 1973).

Several data-based influence strategy scales have already existed in the literature (Aido and Falbo 1994; Falbo 1977; Falbo and Pelau 1980; Foa and Foa 1974; Goodstadt and Hjelle 1973; Hoffman 1982; Kipnis et al. 1980; Marwell and Schmitt 1967; Safilios-Rothschild 1969b; Straus 1979). As noted by Nelson (1988), there have been disagreements as to the number and nature of interpersonal conflict management tactics even among these empirically-derived tactics scales; thus, a safe way of developing a composite measure is to combine all the previous inductive scales into one questionnaire. In this study, we drew upon two existing composite scales: Spiro's (1983) scale and Nelson's (1988) scale, which collected items from the various past scales.

Spiro's (1983) scale contains 33 items that are further classified a priori into six different influence strategies: expert influence, legitimate influence, bargaining, reward/referent influence, emotional influence, and impression management (see Table 2).

Nelson's (1988) scale includes 38 items that draws extensively upon past influence literature. A factor analysis reveals four dimensions: the use of punishments, threats, authority, and negative emotion; the use of positive emotion and subtle manipulation; the use of withdrawal and

egocentrism; and the use of persuasion and reason (see Table 5). It was found that this classification bears considerable resemblance to Spiro's (1983) scale.

Obviously, the combination of the above two scales will result in a lengthy scale that is clumsy for a conjoint design (Lenk et al. 1996). Moreover, the experimental feature of the design may render some items on the scale inappropriate. For example, some negative emotional behaviors, such as crying, hitting, fighting may be less likely to occur in a hypothetical conjoint setting. Two item purification techniques were then used to produce a workable scale. The first one was the factor analysis or confirmatory factor analysis that had been used by several authors to reduce the scales. For example, Kim and Lee recently purified the Spiro's scale to containing only 13 items, using a factor analysis and again a confirmatory factor analysis (Table 6). Nelson herself using a factor analysis reduced the Nelson's scale to including only 20 items (Table 7). So a combination of these two reduced scales conveniently led to a reduced composite scale which, after combining the similar items, included 25 items (Table 8).

Next, a pilot study was conducted to investigate if this composite scale is relevant for a conjoint design, because as we just mentioned, the hypothetical feature of the design may render some items on the scale inappropriate. For this purpose, 10 couples from a local church were asked for participation. In a conjoint setting, questionnaires were presented to each spouse using a 2-point forced choice format with 0=not likely and 1=likely, in order to handle the problem of response set (Robinson et al. 1974). Three specific family decision scenarios each having three alternatives were used. Then by summing up the scores across the 20 spouses and three decision situations, items whose scores were less than 31 were dropped as inappropriate (see Table 9 for results). This finally led to a 12-item scale that I will use in this study (Table 10).

It should be pointed out that, by using this scale, the amount of task on the part of the subjects was comparable to that of the previous studies. For example, Marwell and Schmitt (1967) contrived four situations using a 16-item scale. Spiro (1983) arranged several product profiles using a 33-item scale. Aida and Falbo (1991) selected 5 different purchase situations using a 13-item scale. Kirchler (1993), again, designed 6 vignettes of purchase decisions using an 18-item scale. This means that the validity and reliability of this design are comparable to those of the past research in terms of the questionnaire length (Lenk et al. 1996).

The influence strategy scale thus developed was factor analyzed to confirm its coercion vs. non-coercion structure. This underlying structure was identified for wives and husbands, respectively. In social psychology, power has been equated with successful coercion in a strategic interaction where individuals perceive themselves as seeking mutually incompatible goals (Bachrach and Baratz 1963; Homans 1974). Therefore, a decision process itself can be equated with the choice between coercive and non-coercive influence techniques, such as punishments and rewards. As we have hypothesized, coercion is positively related to power and preference intensity but negatively related to love and perception of equity. An interesting question raised here then is to what extent a spouse would retaliate against coercion and /or keep using coercion in ongoing family decision interactions. Clearly, observation of this interactive family decision process is predicated on a disjoint classification of coercive and non-coercive power strategies (Frazier and Rody 1991; Thomas 1976, 1978).

In fact, this classification has been used in both social psychology and marketing channel literature to study behavioral reaction or reciprocity in a dyadic conflict resolution (cf. Bird et al. 1991; Christensen 1987, 1988; Frazier and Summer 1986; Heavey et al. 1993, 1995; Molm 1997; Tedeschi and Felson 1994). Coercion is seen as stemming from coercive power that again derives from the capacity to give or withhold punishment or negative outcomes (French and Raven 1959; Molm 1997). Non-coercive power is defined as the capacity to influence others through persuasion and the provision of rewards (Molm 1997; Tedeschi and Felson 1994). Therefore, coercion is a means of influence when a person cannot persuade, bribe, manipulate, or otherwise induce a target to comply with his demands, so that he has to resort to his last capability to threaten or punish the target (Tedeschi et al. 1977). Interestingly, this definitional classification between coercive power strategies and non-coercive power strategies is exactly in accord with the structure of Nelson's influence strategy scale, in which the dimensions of the use of punishment, threats, authority, and negative emotion, and the use of withdrawal and egocentrism can be classified as coercive strategies, while the dimensions of the use of positive emotion and subtle manipulation and the use of persuasion and reason can be classified as non-coercive strategies. The present study will purposively use this neat dichotomization between these two types of power strategies.

A question that might be raised is that in a hypothetical decision process to what extent the subjects can be induced to use coercion as opposed to non-coercion or cooperation. This question touches on the validity of the design. With regard to whether subjects will use coercion in a hypothetical decision situation, past research across disciplines seemed to have given a positive answer (Aida and Falbo 1991; Cromwell et al. 1975; Godwin and Scanzoni 1989; Guerin 1995; Kenkel 1961; Kim et al. 1989; Klinetob and Smith 1996; Marwell and Schmitt 1967; Olson and Ryder 1970; Osmond 1978; Strodtbeck 1951; Szinovacz 1981). For example, in his typical hypothetical family interactions, Strodtbeck (1951) using the Revealed Difference Technique (RDT) uncovered that threats and aggression are two more compelling actions in spouses' influence behavior, especially when they perceive their power advantages. Kenkel (1961) used a scenario of discussing spending a hypothetical gift of money ($300) among family members. Given the disagreement as to the way of spending the money, Kenkel found that the husband is more likely to take some negative emotional actions such as criticism and threats. In applying his Reciprocity Simulation Game to a family setting, Osmond (1978) found that spousal resources are positively related to the amount of coercion in a hypothetical decision making process. Using Olson and Ryder's (1970) Inventory Marital Conflicts (IMC), Szinovacz (1981) found that the husband is more likely to win in the IMC tasks (18 hypothetical decision vignettes) using strong power strategies. Also using revealed conflicts technique, Corfman and Lehmann (1987) found that power and preference intensity are positively related to spouses' use of coercive power; in a sequence of 18-product decisions, spouses' decision history of using power is negatively related to their current influence attempts.

In family sociology, several recent studies are noteworthy. In their consensus family decision-making model, Godwin and Scanzoni (1989) designed five family decision areas: household chores, wife's own activities, money, spousal companionship, and childbearing. Spouses are asked to separately complete a questionnaire measuring their opinions about the five decisions, and then they are supposed to jointly discuss the family decision regarding these five topics.

Given the different opinions, it was found that spouses with more power were higher in control attempts, while spouses more in love, having stronger cooperativeness in past conflict, and higher commitment to the marriage had lower degree of coerciveness. Coerciveness here was measured by the number of coercive and rejecting actions observed in group discussion. Aida and Falbo (1991) using five hypothetical family purchase decision scenarios found that in resolving the overt disagreements spouses tend to use several unilateral power strategies, such as sulking, commanding, and laissez-faire. In replicating Communication Patterns Questionnaire-Short Form (CPQ-SF) using an experimenter specified issue, Klinetob and Smith (1996) found that when the husband has stronger preference he tends to use strong power strategies such as criticizing, pushing, demanding. In contrast, when the wife's stake is higher, the wife also tends to use more aggressive actions to get her way. Interestingly, the time-series analyses of observational data confirmed that the demand and withdraw behaviors are temporally associated during the course of discussion.

The preceding empirical studies across disciplines evidence that spouses' decision behavior can be overtly coercive even in a hypothetical interaction. Note that many researchers have used the revealed difference technique or its mutation such as conjoint design. My pilot study using a conjoint design shows that several coercive influence strategies are likely in a hypothetical family decision making process (see Table 9), though the frequency of using coercion is lower than that of non-coercion, which is consistent with the findings of other studies (e.g., Molm 1997; Spiro 1983; Tedeschi et al. 1973). Overall, the validity of experimental interaction approach is tangible and can be tested by means of some realism checks (Olson and Ryder 1970).

Table 6
A Reduced Spiro's (Kim and Lee1996) Influence Strategy Scale

1. I tried to negotiate something agreeable to both of us.
2. I told her/him I have more experience with such matter.*
3. I suggested to him/her that it is the husband's/wife's task to make such a decision.*
4. I tried to get my way by doing a good amount of fast talking that included lies.
5. I reasoned with her/him why she/he should agree to my decision.
6. I tried to come to some sort of compromise with her/him.
7. I used the silent treatment.*
8. I tried to tell her/him all the reasons why my plan is better.
9. I suggested that we talk to somebody who knew more about the matter.
10. I misrepresented what I knew about the other choices in order to convince her/him.
11. I tried to convince her/him by exaggerating positive points of my ideas.
12. I threatened that I will quit looking for a house to buy altogether if she/he persisted.*
13. I suggested that we look for more information.

Note: items with "*" are coercive strategies.

Table 7
Reduced Nelson's (1988) Influence Strategy Scale

1. I kept repeating or arguing my point of view.
2. I behaved angrily (slammed the door, shouted, etc.).*
3. I pointed out how important it was to me the other person do it my way.
4. I just stated my needs. I told him/her what I wanted.
5. I made the other person believe he/she was doing me a favor.
6. I showed how much her/his stand hurt me by looking unhappy, crying, sulking, etc.*
7. I withdrew affection, acted cold, or ignored the other person.*
8. I promised to do something that would make him/her happy.
9. I refused to do something expected of me (e.g., chores).*
10. I got angry and demanded that she/he give in.*
11. I tried to convince or persuade the other person that my way was best.
12. I made the other person unhappy by doing things she/he doesn't like.*
13. I was especially pleasant, helpful, or charming before bring up the subject.
14. I pointed out that she/he had no right to disagree with me on this issue.*
15. I appealed to the other person's love and affection for me.
16. I named a specific punishment that I'd inflict if the other person didn't comply.*
17. I pleaded or begged her/him to see it my way.*
18. I clamed up and refused to discuss the issue.*
19. I offered an exchange (e.g., if you do this for me, I'll do something for you).
20. I obtained the support of others to back up my request.*

Note: items with "*" are coercive strategies.

Table 8
Reduced Composite Influence Strategy Scale

1. I kept repeating or arguing my point of view.
2. I voiced my point of view loudly.*
3. I pointed out how important it was to me the other person do it my way.
4. I just stated my needs. I told him/her what I wanted.
5. I made the other person believe he/she was doing me a favor.
6. I showed how much her/his stand hurt me by looking unhappy.*
7. I withdrew affection, acted cold, or ignored the other person.*
8. I promised to do something that would make him/her happy.
9. I refused to do something expected of me (e.g., chores).*
10. I got angry and demanded that she/he give in.*
11. I tried to convince or persuade the other person that my way was best.
12. I made the other person unhappy by doing things she/he doesn't like.*
13. I was especially pleasant, helpful, or charming before bring up the subject.
14. I pointed out that she/he had no right to disagree with me on this issue.*
15. I appealed to the other person's love and affection for me.
16. I named a specific punishment that I'd inflict if the other person didn't comply.*
17. I pleaded or begged her/him to see it my way.*
18. I clamed up and refused to discuss the issue.*
19. I offered an exchange (e.g., if you do this for me, I'll do something for you).
20. I obtained the support of others to back up my request.*
21. I told him/her I have more experience with such matter.
22. I reasoned with him/her why he/she should agree to my decision
23. I threatened that I will quit the discussion if he/she persisted.*
24. I tried to get my way by doing a good amount of fast-talking that included lies.
25. I tried to negotiate something agreeable to both of us

Note: items with "*" are coercive strategies.

Table 9
Results of the Pilot Study

1. I kept repeating or arguing my point of view (41).
2. I voiced my point of view loudly (35).
3. I pointed out how important it was to me the other person do it my way (24)**.
4. I just stated my needs. I told him/her what I wanted (47).
5. I made the other person believe he/she was doing me a favor (31).
6. I showed how much her/his stand hurt me by looking unhappy (39).
7. I withdrew affection, acted cold, or ignored the other person (3)**.
8. I promised to do something that would make him/her happy (19)**
9. I refused to do something expected of me (e.g., chores) (7)**.
10. I got angry and demanded that she/he give in (42).
11. I tried to convince or persuade the other person that my way was best (50).
12. I made the other person unhappy by doing things she/he doesn't like (29)**.
13. I was especially pleasant, helpful, or charming before bring up the subject (1)**.
14. I pointed out that she/he had no right to disagree with me on this issue (31).
15. I appealed to the other person's love and affection for me (11)**.
16. I named a specific punishment that I'd inflict if the other person didn't comply (9)**.
17. I pleaded or begged her/him to see it my way (18)**.
18. I clamed up and refused to discuss the issue (34).
19. I offered an exchange (e.g., if you do this for me, I'll do something for you) (14)**.
20. I mentioned the children's preferences to back up my point of view (49).
21. I told him/her I have more experience with such matter (39).
22. I reasoned with him/her why he/she should agree to my decision (56).
23. I threatened that I will quit the discussion if he/she persisted (10).**
24. I tried to get my way by doing a good amount of fast-talking that included lies (4)**.
25. I tried to negotiate something agreeable to both of us (42).

Note: items with "**" are dropped.

Table 10
A Reduced Influence Strategy Scale

1. I kept repeating or arguing my point of view.
2. I voiced my point of view loudly.*
3. I made the other person believe he/she was doing me a favor
4. I tried to negotiate something agreeable to both of us.
5. I got angry and demanded that she/he give in.*
6. I pointed out that she/he had no right to disagree with me on this issue.*
7. I told him/her I have more experience with such matter.*
8. I clamed up and refused to discuss the issue.*
9. I showed how much her/his stand hurt me by looking unhappy.
10. I reasoned with him/her why he/she should agree to my decision
11. I just stated my needs. I told him/her what I wanted.
12. I mentioned the children's preferences to back up my point of view.*

Note: Items with "*" are coercive strategies.
Item is rated on a 7-point Likert scale (1=strongly disagree, 7=strongly agree).

4.2.4 Dependent Measures

Spousal coercion propensity A focal dependent measure of this research is spousal coercion propensity which captures the extent to which spouses use coercive strategies to get their way in accommodative family decision making. For operational convenience, this construct was measured on spousal difference, rather than ratio, between coercion mean score and non-coercion mean score on the influence strategy scale. Several problems may arise from using these difference scores in the areas of reliability, discriminant validity, spurious correlations, and variance restriction problems (Peter et al. 1993). In general, difference scores are less reliable than their components if the components are positively correlated. The higher the correlation, the less reliable the difference scores. Low reliability may attenuate the correlation between the difference score measure and measures of other constructs, leading to the illusion of discriminant validity. However, as proposed, the correlations between the two components of the spousal coercion propensity scores are not positive but rather negative. As demonstrated by Peter et al. (1993) themselves, when the correlations are negative, the reliability of the difference scores will instead increase beyond the average of the component score reliabilities.

Spurious correlations are associated with difference scores which are used in the model as independent variables. When difference scores and their components are included in the same analysis, the multicollinearity among these variables may cause unstable parameters. Variance restriction problem arises when one of the components used in computing a difference score is consistently higher than the other. Such restriction in variance, that is, the difference score is always greater than zero, may lead to the violation of normality in the dependent variables. Yet first of all, the spousal coercion propensity scores are not used as independent variables in the DSE model and, in the other regression models, are not used along with their components. Second, the spousal coercion scores are not, theoretically and empirically, designated to be consistently greater than the spousal non-coercion scores within subjects. Therefore, the spousal coercion propensity used as the dependent variables in this research are free of the above four problems attached to difference scores. Instead, because the use of difference scores enhanced the reliability of the construct, it actually represented another advantage to enhance the construct validity.

Note that we used the behavioral self-report method to capture spousal overt influence attempts in joint decision making, as did by several other researchers for the same purpose (e.g., Aida and Falbo 1991; Hoffman 1982; Kim and Lee 1996; Nelson 1988). In essence, this method assumes actors' dual roles as both observer and participant, thus it not only can be used to self-report overt behavior, such as change (e.g., compliance) and resistance (e.g., disagreement), which is observable, but it also can be used to self-report covert behavioral intentions, such as control attempt, reasons for compliance, considerations for cost or timing of "powering", to name but a few, which are unobservable (Olson 1977). This is in accordance with Sprey's (1972) argument that though having difficulty in reporting on the abstract concept of power, subjects can tell us what happens in terms of moves and counter-moves, threats and promises, aggression and appeasement, to mention only a few potentially fruitful concepts.

In order to assess the validity of the influence strategy scale, a realism check was implemented (Corfman and Lehmann 1987; Olson and Ryder 1970). In their separate questionnaires, spouses

were asked to respond to the following two Likert-style questions: "These decisions are practical despite hypothetical, I behaved as I usually do in real family decision making." "These decisions are practical despite hypothetical, my spouse behaved as he/she usually does in real family decision making." The questions were anchored with 1=strongly disagree and 7=strongly agree. Also, a manipulation check on earlier instructions that had asked the subjects not to discuss the alternative ratings before the family choice questionnaire was provided (Corfman and Lehmann 1987). The spouses' stated satisfaction/dissatisfaction with the decision outcomes and processes will provide further evidence for the validity of their responses (Olson and Ryder 1970).

Relative Influence As the functions of spousal decision behavior and process, spousal relative influence and satisfaction, as hypothesized, represent another two dependent measures of the present study. In order to assess the effectiveness of various influence strategies in an accommodative decision making, we measured spousal relative influence using both the self-report method and outcome method. The self-report method asked spouses to state their influence in each decision scenario as opposed to their spouse's influence (e.g., Davis 1970). Specifically, spouses were asked to allocate their influence for each decision based on a 100 constant-sum scale. The outcome measure of spousal relative influence is obtained by comparing spouses' preferences with the corresponding group preferences (e.g., Cofman and Lehmann 1987). The spouse with the personal preference closer to group preference is considered to have wielded more influence (Krishnamurthi 1988). A dummy variable was introduced to capture spousal dominance in each decision scenario with 1 representing the spouse who had more influence and 0 representing the spouse who wielded less influence.

Spousal Satisfaction The spousal satisfaction toward decision outcome and process was measured directly by spouses' stated satisfaction using a 7-point Likert style scale (1=very dissatisfied, 7=very satisfied).

4.2.5 The Independent Variable Measures

Marital Power Consistent with the definition of power in this study (Emerson 1962), a proxy measure of power using dependency is adopted (Gaski 1987). Specifically, marital power is operationalized as the degree to which the spouse is dependent upon his/her partner for valued resources (Emerson 1962).

Nock (1995) used spousal percentages of income and household tasks to measure marital dependency. In order to assess the availability of alternatives to the marriage, an imagined consequence of separation for the spouses were queried. Similar proxy measures of power have appeared in channel literature (cf. El-Anasry and Stern 1972; Frazier et al. 1989). The present study followed this type of measure but emphasized the spousal perception of power in a marital relationship. For this reason, I used the cross-reported rather than self-reported income and housework to form the spousal percentages of these two dependencies. The family amounts of income and housework are the sums of the cross-reported spousal income and housework respectively. The spousal housework comprised six items: cleaning house, cooking, washing up, washing, shopping, and caring kids (Oakley 1985). The two dependence scores were represented by the average percentages, which were the sums of the various dependency scores divided by the corresponding family amount. This is similar to Frazier et al.'s (1989) power measure in

their reciprocal action model. Also, because emotional dependency was assessed in Rubin's (1970) Love Scale, the imagined consequences of separation were not measured here, so that the construct of power would not be correlated with the construct of love.

Love Love has been a major theme in family life. However, as a scientific concept, there seems to have no unified definition of love (Tzeng 1993). In close relationship research, love is synonymous with emotional dependence, trust, and tolerance in a lengthy relationship, and is built on mutual commitment (Kelley 1983). This implies that love may be a multidimensional construct. Rubin's (1970) love scale reveals four dimensions underlying the construct: (1) needing, the person in love has a strong desire to be in the other's presence and to be cared for by the other (items 5, 6, 7, 13); (2) caring, the person in love anticipates wanting to help the other (items 1, 4, 8, 10, 11); (3) trust, the person in love is willing to establish mutual trust through exchange of confidence (items 2, 12); (4) tolerance, the person in love is willing to tolerate the other's faults (items 3, 9) (Kelley 1983). In the main, the person in love is more *emotionally* dependent on the other, commits to the other to a greater degree, and thus has less power than the other (Huston 1983).

The present study used Rubin's (1970) Love Scale to measure love, so as to capture the more loving spouse's long-term orientation such as conformity, conflict avoidance, and sense of equity. Specifically, a nine-item love scale (condensed version) was used (see Table 11). Each measurement item is rated on a 7-point Likert scale (1=strongly disagree to 7=strongly agree) without a neutral point. Scale scores were then computed by summing scores on the individual items, where each item was represented by the numerical value of the chosen response alternative. The total score for the scale ranged from 9, indicating minimal love, to 63, indicating maximal love.

Preference Intensity Spouses' preference for a specific alternative is a direct function of relative values attached to each attribute level of the alternative. Therefore, spouses' stated rating for each alternative was used to measure their preference for that alternative. The higher the rating, the stronger the preference and vice versa (e.g., Corfman and Lehmann 1987; Krishnamurthi 1988).

Decision History Decision history refers to spouses' decision behavior such as uses of power in past family decision occasions (Pollay 1968). As such, decision history was directly measured by the number of times spouses used coercive strategies or non-coercive strategies in past family decisions (e.g., Corfman and Lehmann 1987). That is, the measure of spousal decision history was based on spouses' self-report of influence strategy uses in the three decision scenarios. A sequence of dummy variables was formed to capture the spousal decision behavior variations.

4.2.6. Manipulation of Questionnaire

The questionnaire was manipulated in order to alleviate the potential carry-over effect and order bias. First, for one-half of the questionnaires the Rubin's (1970) Love Scale was placed before the section of influence strategy choice, while for the other half of the questionnaires this sensitive scale was placed after the section of influence strategy choice. Second, for the three decision scenarios, the influence strategy scale was randomized. That is, the items on the scale

were randomly arranged for each decision scenario in order to overcome the order bias. Also, the orders of the three decision scenarios were randomly arranged for individual questionnaires. The pilot study indicated that the subjects could clearly understand the questionnaire questions and instructions.

4.3 Data Analysis

The unit of analysis for this study was the marital dyad. The individual spouse's decision behavior was analyzed in an interactive family decision context. In order to test the spousal influence strategy choice behavior model (H1a-H5b), an Autoregressive Two-Stage Least Squares approach (A2SLS) was employed to calibrate the dynamic simultaneous equations model. The interactions between the exogenous variables, namely, H6 and H7, were tested by means of several unbalanced MANOVAs, using GLM procedures in SPSS. In order to test the relationships among coercion, effectiveness of coercion, and satisfaction with decision outcomes and processes (H8-H10), a set of binary logistic regressions and linear multiple regressions were employed.

Table 11
Rubin's (1970) Love Scale

Subjects are asked to answer the following questions concerning their attitudes toward the loved one. (Note: in a condensed version, items 1, 3, 5, and 11 are omitted).

1. If ___ were feeling badly, my first duty would be to cheer him/her up.
2. I feel that I can confide in ___ about virtually everything.
3. I find it easy to ignore ___'s faults.
4. I would do almost anything for ___.
5. I feel very possessive toward ___.
6. If I could never be with ___, I would feel miserable.
7. If I were lonely, my first thought would be to seek ___ out.
8. One of my primary concerns is ___'s welfare.
9. I would forgive ___ for practically anything.
10. I feel responsible for ___'s well being.
11. When I am with ___, I spend a good deal of time just looking at him/her.
12. I would greatly enjoy being confided in by ___.
13. It would hard for me to get along without ___.

- Each measurement item is rated on a 7-point Likert scale (1=strongly disagree to 7=stronglyly agree) without a neutral point.

4.4 Summary

This chapter developed a dynamic simultaneous equations model that uncovers the determinants and behavioral reciprocity of spousal probabilistic choice of influence strategies from a dynamic perspective. The three explicit independent variables included power, preference intensity, and love. Power was operationalized as spouses' perceptions of their dependency on their partners' current and future economic contribution and housework share (Nock 1995). Preference intensity as the degree of stake in decision outcomes was measured by spouses' stated rating of an alternative in the choice set (Corfman and Lehmann 1987). Love was measured by a Rubin's (1970) Love Scale as a multidimensional construct revealing four dimensions: needing, caring, trust, and tolerance. As an implicit independent variable, decision history was operationalized as the number of times a spouse used coercive strategies or non-coercive strategies in getting his/her way in the past. An autocorrelated error term regression model was developed to incorporate into the general model the effects of a spouse's past decision behavior on his/her present power strategy choices.

A focal dependent variable for this study is spousal coercion propensity. In order to investigate the effectiveness of various influence strategies, spousal relative influence and satisfaction with decision outcome and process were measured as another two dependent variables.

A conjoint design was adopted to implement the above models, using three family decision scenarios including a decision about family vacation, a decision to eat out, and a decision about a family music event. The procedures for sampling and implementing the design were detailed and the validity of the design is justified.

In order to obtain the dependent measures, an inductive influence strategy scale was developed combining Spiro's (1983) influence strategy scale and Nelson's (1988) influence strategy scale. A pilot study was conducted to test the relevancy of the scale in a conjoint setting, which led to a concise scale containing 12 influence strategies. The focal dependent variable was created based on dichotomy of coercion and non-coercion. The validity of this dichotomy in investigating reciprocity in dyadic conflict resolution was evidenced.

Given the data, the dynamic simultaneous equations model was estimated via an Autoregressive Two-Stage Least Squares approach (A2SLS). The interactions were tested using several unbalanced MANOVAs. A set binary logistic regressions and regular regressions were used to test the relationships among coercion, spousal relative influence, and satisfaction with decision outcome and process. The summary of methodology is presented in the following table.

Table 12:
Summary of Methodology

Hypotheses	Independent Variables	Dependent Variables	Predictions	Tests
H1	Marital power	Spousal coercion propensity	Marital power is positively related to spousal coercion propensity	DSE model: significance of β1and α1: t-values
H2	Preference intensity	Spousal coercion propensity	Preference intensity is positively related to spousal coercion propensity	DSE model: Significance of β2 and α2: t-values
H3	Love	Spousal coercion propensity	Love is negatively related to spousal coercion propensity	DSE model: significance of β3 and α3:t-values
H4	Spousal coercion propensity	Spousal coercion propensity	Spousal coercion propensity is negatively related to spousal coercion propensity	DSE model: significance of β4 and α4: t-values
H5	Decision history	Spousal coercion propensity	There is negative autocorrelation between spousal coercion propensity	First-order autoregressive model: significance of ρ's: Durbin-Watson statistic and t-values
H6	Interaction of love and power	Spousal coercion propensity	Love moderates the effect of power on spousal coercion propensity	MANOVA: Wilks' λs
H7	Interaction of love and preference intensity	Spousal coercion propensity	Love moderates the effect of preference intensity on spousal coercion propensity	MANOVA: Wilks' λs
H8	Coercion	Spousal relative influence	Coercion is positively related to spousal relative influence	Logistic model: significance of coefficient (B): Wald statistics
H9	Coercion	Spousal satisfaction with decision outcome	Coercion and spousal relative influence are positively related to spousal satisfaction with decision outcome	Regression model: significance of coefficients: t-values
H10	Coercion	Spousal satisfaction with decision process	Coercion is negatively related to spousal satisfaction with decision process	Regression model: significance of coefficients: t-values

Chapter 5 Results

This chapter discusses the results of the study. It first reports the results of the preliminary analyses that consist of sampling, factor analyses of influence strategy scale and Rubin's (1976) Love Scale, and the results of realism check and manipulation check. It then discusses the results of model calibrations. Hypotheses were confirmed or rejected using these results.

5.1 Sampling

Participants in this study were recruited from married faculty members in a large southeastern university. One thousand names were randomly drawn using the directory of faculty and staff as the sampling frame, which comprises 5625 entries. Two hundred and forty seven couples agreed to participate. After two follow-ups, 152 couples returned the completed questionnaires, resulting in a response rate of 61.5%. Given the assumed accommodative nature of joint decisions that emphasize conflict, 55 returned questionnaires were excluded from data analyses due to their consensus nature, that is, spouses' ratings on most or all of 9 alternatives across the three family decisions were within 10 points on a 1 to 100 scale (Strodtbeck 1951). This implies a percentage of disagreement of 63.8% between couples, lower than Spiro's (1983) 88%, substantially higher than Corfman and Lehmann's (1987) 39%, but close to Kim and Lee's (1996) 56%. Additionally, 6 couples were deleted from the data set due to incomplete data on some major survey questions. This eventually led to 91 usable questionnaires in couples that were included for data analyses. Based on past research on family decision making (cf. Corfman and Lehmann 1987; Menasco and Curry 1989; Szinovacz 1981), it was felt that a usable sample size of 50-70 couples could be considered adequate.

The demographic characteristics of the 91 couples, who produced the usable questionnaires, are presented in Table 13. Specifically, the average marriage length of the respondents was 14.2 years, and the average number of children who were under 18 was 1.43. As could be expected, the educational level for the sample was positively skewed. Of the 91 husbands, 43 (47.25%) had a Ph.D. degree; 11(12.09%) had a Master degree; 20 (21.98%) had a Bachelor degree; and the remaining 17 (18.68%) had a high school diploma plus some professional training. On the other hand, 14 wives (15.38%) reported to have a Ph.D. degree; 21 wives (23.07%) had a Master degree; 27 wives (29.67%) had a Bachelor degree; and the remaining 32 wives (35.16%) had a high school diploma or associate degrees. Corresponding to the spousal education gap, the average annual income for husbands fell on the $60,000-$69,000 interval, while this mean for wives fell on the $30,000-$39,000 interval. Clearly, this was an upscale sample and the generality of any results based on this sample can be limited.

5.2 Scale Development

Factor analyses were performed separately for wives and husbands to identify the underlying structures of the two scales used in this research: influence strategy scale and Rubin's (1970) Love Scale. Reliability analyses then were performed to further determine internal consistency of the scales.

Influence strategy scale An item analysis suggested a two-factor structure of the scale: items "I voiced my point of view loudly," "I showed how much his/her stand hurt me by looking unhappy," "I got angry and demanded that he/she give in," "I told him/her it is the wife's/husband's task to make such a decision," " I mentioned the children's needs to back up my point of view," "I clamed up and refused to discuss the issue" can be classified into coercive influence strategies (Nelson 1988). These coercive strategies are mainly based on threats, punishments, authority, coalition, and negative emotions (Molm 1997; Sheth 1974; Tedeschi and Felson 1994). On the other hand, items "I kept repeating or arguing my point of view," "I told my husband/wife I have more experience with such matters," "I made my husband/wife believe he/she was doing me a favor," "I reasoned with him/her why he/she should agree to my decision," "I tried to negotiate something agreeable to both of us," "I just stated my needs; I told him/her what I wanted" can be classified into non-coercive influence strategies. These strategies are mainly based on persuasion, reasoning, bargaining, manipulation, and positive emotions (Kirchler 1993; Nelson 1988; Sheth 1974; Tedeschi et al. 1977). Factor analyses basically confirmed this two-factor structure of the scale.

Results of the factor analysis for wives (principle component analysis with an oblique rotation) showed that the two factors underlying the 12 items accounted for 53.30% of the total variance for the wife sample (N=91). The factor loading for all 12 items were greater than .40 and thus no items was deleted. The alpha coefficients for the two factors are .8458 and .7487, respectively (Table 14) and are acceptable (Nullally 1967).

Results of the factor analysis for husbands (principle component analysis with an oblique rotation) revealed a three-factor structure which accounted for 54.30% of the total variance for the husband sample. In addition to the two clusters of items which could be named coercion and non-coercion factors respectively, the item "I clamed up and refused to discuss the issue" was extracted as an independent factor which accounted for 9.19% of the total variance. However, an inspection of the original data indicated that few husbands had used this strategy in all three decision scenarios. This uniform response of husbands to this item rendered this item isolated from the other items. Reliability analysis indicated that the addition of this item to either factor lowered the factor's alpha coefficient. Therefore, this item was deleted from the scale. Alpha coefficient for the coercion factor (5 items) was .7597 while the alpha coefficient for the non-coercion factor (6 items) was .7893 (Table 15).

Rubin's (1970) Love Scale Factor analyses revealed a one-factor structure for both wife sample and husband sample. This implied that the four dimensions uncovered in Rubin's (1970) analysis, that is, emotional dependency, caring, trust, and tolerance, are highly correlated. The alpha coefficients for wife sample and husband sample were .9136 and .8977, respectively. This compared to .84 and .86 in Rubin's (1970) analysis (Table 16).

5.3 Realism Check and Manipulation Check

In order to ensure that the three family decision scenarios reflected practical family decision making and the influence strategy scale captured spousal normal decision behavior, a realism check was implemented by asking the following two questions: "These decisions are practical despite hypothetical, I behaved as I usually do in real family decision making." "These decisions

are practical despite hypothetical, my spouse behaved as he/she usually does in real family decision making." The questions were anchored with 1=strongly disagree and 7=strongly agree (Olson and Ryder 1970). Also, a manipulation check on earlier instructions that had asked the subjects not to discuss the alternative ratings before the family choice questionnaire was provided (Corfman and Lehmann 1987). A single Likert style question was asked: "When I filled out the Part A of this questionnaire, I did not discuss with my husband/wife and formed my ideas independently." The question was also anchored with 1=strongly disagree and 7=strongly agree. The response means for the two realism check questions were 6.132 and 6.088 for wives and 6.022 and 6.033 for husbands. The response means for the one manipulation check question were 6.791 for wives and 6.934 for husbands (Table 17). This indicated that subjects found the three decision scenarios realistic and that they had followed the instructions.

Table 13
Sample Characteristics

Sample Size	91
Average Marriage Length (Yr)	14.2 (Sd=8.31)
Average Number of Children (<18 Yr)	1.43 (Sd=1.20)
Wife's Education	
Ph.D. degree	15.38%
Master's degree	23.07%
Bachelor's degree	29.67%
Others	35.16%
Husband's Education	
Ph.D. degree	47.25%
Master's degree	12.09%
Bachelor's degree	21.98%
Others	18.68%
Wife's Average Income Range	$30,000-$39,000
Husband's Average Income Range	$60,000-$69,000

Table 14
Factor Analysis of Influence Strategy Scale: Wife Sample

Influence Strategies	Factor 1	Factor 2
Voicing loudly	.763	
Coalition	.756	
Authority	.746	
Angry	.559	
Claming up	.434	
Looking unhappy	.403	
Arguing		.737
Favor		.708
Negotiation		.672
Experience		.637
Reasoning		.631
Statement		.549
Eigenvalue	4.390	2.006
Variance Accounted for	36.58%	16.72%
Cronbach' Alpha	.8458	.7487
Inter-Factor Correlation	1.000	-.344
	-.344	1.000

Extraction method: Principle component analysis
Rotation method: Promax with Kaiser normalization

Table 15
Factor Analysis of Influence Strategy Scale: Husband Sample

Influence Strategies	Factor 1	Factor 2	Factor 3
Looking unhappy	.801		
Coalition	.796		
Angry	.666		
Authority	.654		
Voicing loudly	.521		
Statement		.816	
Reasoning		.756	
Arguing		.702	
Experience		.624	
Favor		.588	
Negotiation		.457	
Claming up			.900
Eigen Value	4.858	1.778	1.103
Variance Accounted for	38.48%	15.82%	9.19%
Cronbach's Alpha	.7597	.7893	
Inter-Factor Correlation	1.000	-.577	-.104
	-.577	1.000	.158
	-.104	.158	1.000

Extraction method: Principle component analysis
Rotation method: Promax with Kaiser normalization

Table 16
Factor Analysis of Rubin's (1970) Love Scale*

	Wives	Husbands
Alpha	.9136	.8977
Number of factor	1	1
Mean **	51.42	49.20
Median	56.00	48.00
Standard deviation	11.40	10.62
Minimum	29.00	21.00
Maximum	63.00	63.00
Skewness	-.965	-.189
Kurtosis	.123	-1.32

*N=91
**p=.107

Table 17
Results of Realism Check and Manipulation Check: Wife Sample*

Item	Mean	
	Wife Sample	**Husband Sample**
1. These decisions are practical despite hypothetical, I behaved as I usually do in real family decision making.	6.132 (Sd=.762)	6.022 (Sd=.907)
2. These decisions are practical despite hypothetical, my husband behaved as he usually does in real family decision making.	6.088 (Sd=.770)	6.033 (Sd=.752)
3. When I filled out the Part A of this questionnaire, I did not discuss with my husband and formed my ideas independently.	6.791 (Sd=.548)	6.941 (Sd=.250)

*N=91

5.4 Hypotheses Testing

Several statistical procedures were used to test the hypotheses of this dissertation. H1a to H5b were tested using a dynamic simultaneous equations model (DSE) which captures the temporal interactions between couples as well as the determinants of household conflict resolution in family decision making. The two endogenous variables were spousal coercion propensity for the wife and husband. Exogenous variables included spousal power, love, and preference intensity for both spouses. In order to overcome the combination of problems of simultaneity and autocorrelation, an Autoregressive Two-Stage Least Squares approach (A2SLS) was employed to calibrate the model (Stewart and Wallis 1981). Specifically, we first regressed the two endogenous variables on all the six exogenous variables for both spouses, using the reduced forms of the model, to get their predicted values. In the second stage, we pre-estimated the simultaneous model with the two endogenous variables on the right-hand side of the equations replaced by their predicted values, respectively. We then estimated the autocorrelation coefficients ρ's using the consistent estimates thus obtained from the above regressions. Next, transformations of the model using the estimated ρ's were carried out in order to get rid of the autocorrelations in the model. Finally, in order to overcome the "simultaneous bias", namely, the correlations between the endogenous variables and the error terms in the model, a Two-Stage Least Squares approach (2SLS) was employed. Then, the dynamic simultaneous equations model (DSE) was calibrated across the three family decision scenarios to uncover the unbiased and consistent estimates of the parameters in the model. Hypotheses (H1a to H5b) were tested using these results (see Table 18 to Table 23).

The possible interactions between the three major exogenous variables (H6 and H7) were tested using several 2x2 unbalanced MANOVAs. The dependent variables were spousal coercion propensity for the wife and husband. As hypothesized, the two dependent variables are correlated. For each 2x2 MANOVA, the two between-subjects factors were spousal love and spousal power, and spousal love and spousal preference intensity, respectively. The factors were measured and median-split into low vs. high levels. Hypotheses (H6 and H7) were tested using MANOVAs across three decision scenarios (see Table 24 to Table 25).

H8 was tested via two binary logistic regression models. Given the outcome measures of relative influence across three decision scenarios, the dependent variables were probability of winning in each decision occasion. The independent variables were spousal coercion propensity for the wife and husband. The aim of the hypothesis was to investigate the effectiveness of coercive power strategies in joint family decision making. As a comparison between self-report measures and outcome measures of spousal influence, a set of linear regression model using spousal self-report measures of relative influence as the dependent variables were also estimated (see Table 26 to Table 27).

H9 and H10 were tested via two linear multiple regression models using data across the three decision scenarios (see Table 28).

The abbreviation for the various variables, endogenous (dependent) and exogenous (independent) alike, of the models are given in Appendix B and all the statistical results are included in Appendix C. The specific results of hypothesis tests are reported as follows.

Power and Spousal Family Decision Behavior (H1a and H1b): This group of hypotheses posits that in joint family decision making spousal power is positively related to spousal propensity to use coercive influence strategies. Table 18 summarizes the results of H1a and H1b.

For both spouses, the hypotheses were not supported across the three family decision scenarios. The contribution of power to spousal coercion propensity was negligible, as revealed by the magnitude of the coefficients, for both wives and husbands. For example, across three decision scenarios, these coefficients were uniformly less than .1 in an absolute sense: -.066 (p=.333) and -.037 (p=.675) for the first decision, .000 (p=.999) and -.065 (p=.436) for the second decision, and -.046 (p=.579) and .066 (p=.463) for the third decision. Moreover, most of the coefficients' signs were negative, opposite to what the hypotheses posit. This pattern was confirmed by the results of MANOVAs. Across the three MANOVAs, the main effects of power for both wives and husbands were not significant: for the first decision occasion, for example, spouses with higher power were not significantly different from spouses with lower power in terms of their family decision behaviors (Wilks' λ=.999, F=.051, p=.950 for wives; Wilks' λ=.997, F=.097, p=.908 for husbands). The other two decision scenarios followed the similar insignificant patterns: in the second decision, Wilks' λ=.998, F=.056, p=.946 for wives and Wilks' λ=.988, F=.441, p=.645 for husbands; whereas in the third decision, Wilks' λ=.997, F=.128, p=.880 for wives and Wilks' λ=.995, F=.184, p=.833 for husbands.

Two speculations were advanced to explain the nonsignificant pattern of power in predicting spousal family decision behavior. First, the equally high power possessed by both spouses in the sample might contribute to spouses' refraining from using power in joint family decision making. According to the theory of bilateral deterrence (Bacharach and Lawler 1981; Molm 1997), power tends to deter the use of power especially at an equally high power level. As shown in Table 19, the power level for both spouses were close to each other, with wives having slightly more power (p=.107).

Second, the composition of power scores as suggested by Nock (1996) is questionable. The function of spousal income and housework as two household contributions might be different or even mutually determined. Specifically, the amount of housework as a type of service to the family may be a function of spousal economic income: the higher the income, the less housework assumed (Backer 1994). Given the changing traditional gender roles toward more egaliterian ones, Scanzoni (1979) suggested that spousal economic income is negatively related to spousal share of housework in a dual-career household. For this reason, we decomposed the power score into two separate scores: spousal income score and spousal housework score, so that we could separate their effects on spousal family decision behaviors.

Results from both regression analyses and MANOVAs showed limited improvements. The regression models using spousal income and spousal housework as two separate predictors produced results indicating that spousal income had a positive though nonsignificant effect on

spousal coercion propensity while spousal housework had a negative—still nonsignificant, effect on spousal coercion propensity. However, the small magnitude of their marginal contributions and their nonsignificant pattern led us to believe that these improvements were trivial. Across the three decision occasions, the coefficients of WPOWERI ranged from .027 to .057, the coefficients of WPOWERH from -.03 to -.027; on the other hand, the coefficients of HPOWERI ranged from .046 to .087, the coefficient of HPOWERH from -.106 to -.05. Uniformly, these coefficients were not significantly different from zero. The MANOVAs using spousal income power as an independent factor demonstrated the similar nonsignificant patterns, except for the third decision occasion in which husbands' income power showed some marginal significant pattern: Wilks' λ=.939, F=2.512, p=.088.

Preference Intensity and Spousal Family Decision Behavior (H2a and H2b): This group of hypotheses posit that in joint family decision making spousal preference intensity is positively related to spousal propensity to use coercive influence strategies. Table 20 shows the results of H2a and H2b.

As hypothesized, this proposition was strongly supported across the three decision scenarios. The DSE model showed significant results in terms of the magnitude of coefficients and positive signs, supporting the hypotheses. Specifically, the coefficients for wives' preference and husbands' preference in the model ranged from .173 to .734 and from .134 to .473, respectively, all of which were significantly different from zero. The p-values for the wife sample ranged from .000 to .004. The p-values for the husband sample ranged from .000 to .079. The MANOVAs confirmed these results. The main effects for both wives and husbands across the three decision occasions were significant with the Wilk's λs ranging from .676 to .813 and from .716 to .834, respectively. These results translate to the proposition that spouses with stronger preference toward the decision outcomes are more likely to use stronger means of influence in joint family decision making. This finding was consistent with Corfman and Lehmann's (1987) results as well as findings from social psychology.

Love and Spousal Family Decision Behavior (H3a and H3b): This group of hypotheses posit that in joint family decision making spousal love is negatively related to spousal propensity to use coercive influence strategies. The Table 21 shows the results of H3a and H3b.

The hypotheses were also supported for both spouses across the three decision occasions. The results from the DSE model indicated that the more loving wives were less likely to use coercive power strategies and so were the more loving husbands (t=-5.505, p=.000; t=-1.732, p=.087; t=-5.630, p=.000 for the wife sample across the three decisions. For the husband sample, t=-3.808, p=.000; t=-4.229, p=.000; t=-1.815, p=.073 across the three decisions). The results from the three MANOVAs basically confirmed this pattern. In the 2x2 MANOVAs with love and power as the two factors, the main effects for both spouses were significant except for the third decision occasion in which the main effect of HLOVE was nonsignificant (Wilk's λ=.987, F=.465, p=.630), and for the second decision occasion in which the main effect of WLOVE was nonsignificant (Wilk's λ=.947, F=2.034, p=.138). In the 2x2 MANOVAs with love and preference as the two factors, the main effects of WLOVE across the three decisions were all

significant (Wilk's λ=.829, F=7.503, p=.001; Wilk's λ=.781, F=10.103, p=.000; Wilk's λ=.648, F=19.826, p=.000). The main effects of HLOVE were significant for the first two decision occasions (Wilk's λ=.801, F=9.049, p=.000; Wilk's λ=.729, F=13.381, p=.000), while for the third decision the main effect of HLOVE was not significant (Wilk's λ=.970, F=1,119, p=.332). This pattern of results implies that spousal love as a construct may have structural impacts in predicting spousal family decision behaviors.

Reciprocity and Spousal Influence Strategy Choice Behavior (H4a and H4b): This group of hypotheses posit that in joint family decision making spousal propensity to use coercive influence strategies is negatively related to the other spouse's propensity to use coercive strategies. That is, Spouses' uses of influence strategies in family decision making are conditional on the other's decision behaviors. Table 22 summarizes the results of H4a and H4b.

Generally speaking, these hypotheses were not confirmed except for some marginal support. The results of DSE model showed the right negative signs for both spouses across all the three decision occasions. The magnitude of coefficients were, for the most part, substantial, ranging from.096 to .487 in an absolute sense. However, most of the results were nonsignificant, except for YWSTAR2 in the third decision occasion (beta=-.201, t=-2.208, p=.03). However, when the predictor of spousal power in the model were decomposed into spousal income and spousal housework, significant results appeared for three of the six coefficients: YHSTAR1 (bete=-.145, t=-1.797, p=.079), YHSTAR2 (beta=-.218, t=10.51, p=.000), YWSTAR2 (beta=-.177, t=-1.986, p=.05). This may imply that the relevance of predictors in the model or model specification could affect the power of the Two-Stage Least Squares (2SLS) which alleviates the correlation between the endogenous variables and the error terms in the model. In addition, the small portion of the spouses who used coercive influence strategies in joint family decision making might be another reason of insignificance. Among 273 decisions made by the 91 couples, only 67 (24.54%) decisions for the part of wives were revealed explicitly coercive (i.e., their ratings on most coercive strategies were greater than 4), while only 71 (26%) decisions for the part of husbands were explicitly coercive. The relatively weak degree of coercion or effect size between couples might undermine the statistical power.

Note that the comparisons of coefficients between spouses indicated that husbands' coercion propensity contributed negatively more to wives' propensity to use coercive strategies across the three decisions than wives' coercion propensity to husbands' propensity to use coercive strategies. This implies that wives were more likely to yield their way in decision processes when husbands revealed their coercion propensity. This might be based on wives' higher emotional dependency on their spouses. This pattern can be confirmed by the interactions between LOVE and PREFERENCE where two Wilk's λs for wives were smaller than those for husbands, suggesting higher significance levels.

Decision History and Spousal Family Decision Behavior (H5a and H5b): This group of hypotheses posit that in joint family decision making spousal propensity to use coercive influence strategies is negatively related to spousal uses of coercive strategies in the past. Table 23 shows the results of H5a and H5b.

The results from the DSE model supported these two hypotheses. As anticipated, spouses tended not to use strong means of influence continuously; they tended to share the wins in a sequence of decisions (Corfman and Lehmann 1987). Durbin-Watson statistics from the calibration of the DSE model showed some clear support for a first-order negative autocorrelation in the error terms ($2< d <4$). Furthermore, the results from the first-order autoregressive model showed significant support for specific ρ's. For example, in the second decision occasion, spousal propensity to use coercive influence strategies was significantly negatively affected by spousal propensity to use strong means of influence in the first decision occasion (ρ_w=-.165, t=-2.186, p=.038; ρ_h=-.103, t=2.324, p=.024). The corresponding Durbin-Watson statistics for the wife sample and the husband sample were 2.477 and 2.682, respectively. The spousal decision behaviors in the third decision occasion followed a similar pattern (ρ_h=-.135, t=-2.086, p=.039; ρ_h=-.175, t=-1.679, p=.097). The corresponding Durbin-Watson statistics were 2.418 and 2.320, respectively. Interestingly, when the predictor spousal power in the model was replaced by its components, spousal income and spousal housework, the Durbin-Watson statistic increased to 2.505 and 2.712 for the wife sample and the husband sample in the second decision occasion, respectively, while Durbin-Watson statistics increased to 2.457 and 2.396 for both samples in the third decision, respectively. This, once again, implies that model specification will affect the statistical power.

The comparisons of ρ's between spouses in the two first-order autoregressive models revealed an interesting pattern of spousal considerations of past "powering" behaviors. For the first lag (i.e., the second decision occasion), wives seemed to have stronger tendency to refrain from using power because of their past power behaviors (ρ_w=-.165 < ρ_h=-.135); whereas for the second lag (i.e., the third decision occasion), husbands seemed to be more likely to refrain from using coercion (ρ_h=-.175 < ρ_w = -.103).

Interaction between Love and Power (H6): This hypothesis posits that spousal love tends to moderate spousal power in terms of its effect on spousal propensity to use coercive influence strategies in joint family decision making. As shown in Table 24, the interactions between love and power for both spouses across three MANOVAs were not significant: the Wilk's λs for wives were .989, .981, and .983 across the three decision occasions, while for husbands were .977, .995, and .980, respectively. These patterns are clearly revealed in their corresponding profile plots (Figure 2). Even after the power factor was replaced by its components, namely, spousal income and spousal housework, no improvements were gained. Instead, the corresponding Wilk's λs for both spouses were worsened by uniformly assuming the value 1.000, implying a zero F-value.

Consistent with the results of H1a and H1b, the above results were likely due to the nonsignificant pattern of power in predicting spousal family decision behaviors. But strangely, the decomposition of power into its two components this time made no improvement on statistical power at all. All these imply that more research on family power might be needed and this construct should not be abused in family decision making studies (Cromwell and Olson 1975).

Note that the MANCOVA (Multivariate Analysis of Covariance) with length of marriage (ML) and number of children (NC) being the covariates showed insignificant results for most decision occasions for both spouses. Also, across the three decision occasions for both spouses, those significant covariate effects did not affect the main effects of the major factors. Therefore, the two covariates could be thought of as having no important impacts on the results.

Interaction between Love and Preference Intensity (H7): This hypothesis posits that spousal love tends to moderate the effect of spousal preference on spousal propensity to use coercive influence strategies. That is, the more loving spouses are more likely to forgo personal goals in family decision making in support of the marriage, more so than less loving spouses. As shown in Table 25, all the six interaction patterns across the three decision occasions were significant. The Wilk's λs for wives were .818, .892, and .883, while for husbands were .886, .885, and .903, implying a uniform support of H7 at a significant level below .05 (see Figure 3 for profile plots).

Note also that the MANCOVA demonstrated few significant results for the two covariates ML (length of marriage) and NC (number of children).

Effectiveness of Coercive Influence Strategies (H8): This hypothesis posits that spouses who used coercive influence strategies are at least as likely to get their way as those who used non-coercive strategies in joint family decision making. Obviously, this has been an under-researched proposition. And past research on the effectiveness of power strategies were, for the most part, based on self-report measures of influence (Bhatnagar 1993; Yulk and Falbe 1991; Yukl and Tracey 1992). This research investigated the effectiveness of power strategies in family decision making based on outcome measures of influence. Table 26 summarizes the results of H8.

Results from a binary logistic regression model demonstrated no significant results for wives but yielded the correct positive signs for all the three decision occasions. However, it was shown that for the first and third decision occasions, husbands' uses of coercive influence strategies contributed negatively to wives' wins (B=-.265, Wald=11.770, p=.000; B=-494, Wald=12.296, p=.000). Given the dichotomous dependent variable in the model, this implied a partial support for the hypothesis that husbands who used coercive influence strategies are more likely to win in joint family decision making.

Self-report measures of influence have been criticized as having low convergent validity and suffering from perceptual and reporting biases (Corfman 1991; Davis 1970). In the present study, the self-report of spousal influence also performed poorly by showing a low internal agreement between spouses (Table 27). Across the three decision occasions, the percentages of disagreement as to spousal relative influence were 48.35%, 52.75%, and 42.86%, implying at least one of the spouses misreported his/her relative influence (Corfman 1991). Moreover, the results from a comparison of self-report measures and outcome measures of spousal influence across the three decisions indicated that spouses tended to under-report their wins (Table 27). For example, for the first decision occasion, only 22.22% of the wives correctly self-reported they won, relative to 26.91% of the husbands who did so. For the second and third decision occasions, these percentages were 25% relative to 36.73% and 16.28% relative to 40%, respectively, strongly suggesting the poor performance of models using these self-reported spousal influence as the dependent variable. In fact, regression results for wives were all

nonsignificant with confused signs and only marginally significant for one decision occasion for husbands, unable to fully support the hypothesis (Table S29-Table S34).

Satisfaction with Decision Outcomes and Processes (H9 and H10): These hypotheses posit that spouses who used coercive influence strategies in joint family decision making are satisfied with the decision outcomes but dissatisfied with the decision processes. This is because spouses who used coercive power strategies are more likely to win, as hypothesized. However, the strong means of influence may induce resistance or utility debt from/to the other spouses (Pollay 1968; Szinovacz 1987), producing dissatisfaction toward the decision processes in which coercive strategies were used. However, as shown in Table 28 and Table 29, these hypotheses were only partially supported. For H9, results from the regression model indicated no significant coefficients for wives across the three decision occasions. On the other hand, results showed two marginal significant coefficients for husbands in the first and third decision occasions (beta=.172, t=1.817, p=.073; beta=.021, t=1.843, p=.069). This is consistent with the pattern tested in H8, in which no significant results appeared for wives while husbands had two significant results for the first and third decisions. Noteworthy is that results from the model for both spouses strongly indicated that spousal satisfaction with the decision outcomes was negatively related to the other spouses' uses of coercive influence strategies. This implies that uses of strong means of influence in family decision making may have the negative impact on spousal decision attitude and behavior.

Results from the multiple regression showed similar patterns for H10. That is, wives who used coercive influence strategies were not found to be significantly dissatisfied with the decision processes. Note that a wrong positive sign appeared in the third decision occasion (beta=.133, t=1.393, p=.167). On the contrary, for the first two decisions, husbands' coercion propensity was found to significantly contribute to their dissatisfaction toward the decision processes (beta=-.232, t=-2.307, p=.023; beta=-.204, t=-1.756, p=.083).

Table 18
Results of H1a and H1bTesting: POWER
(The DSE Model)

	Beta	**t-value**	**Sig.**
X11	-.066	-.973	.333
X1AJUST1	.000	-.001	.999
X1AJUST2	-.046	-.557	.579
X41	-.037	-.446	.657
X4AJUST1	-.065	-.783	.436
X4AJUST2	.066	.737	.463
WPOWERI1	.057	.826	.411
WPIAJUST1	.027	.340	.735
WPIAJUST2	-.068	-3.640	.000
WPOWERH1	-.03	-.432	.667
WPHAJUST1	-.027	-.343	.732
WPHAJUST2	-.027	-2.667	.009
HPOWERI1	.046	.556	.579
HPIAJUST1	.050	.598	.562
HPIAJUST2	.087	.999	.321
HPOWERH1	-.106	-1.261	.211
HPHAJUST1	-.050	-.582	.278
HPHAJUST2	-.050	-2.276	.025

Table 19
Comparisons of Spousal Power*

Spousal Power	Mean
WPOWER	103.17 (Sd=1.802)
HPOWER	92.98 (Sd=1.807)
WPOWERI	29.00 (Sd=1.405)
HPOWERI	70.99 (Sd=1.405)
WPOWERH	74.16 (Sd=1.394)
HPOWERH	21.98 (Sd=1.358)

*N=91

Table 20
Results of H2a and H2bTesting: PREFERENCE
(The DSE Model)

	Beta	**t-value**	**Sig.**
X21	.177	3.207	.000
X2AJUST1	.298	2.982	.004
X2AJUST2	.345	3.744	.000
X51	.137	2.389	.019
X5AJUST1	.218	1.818	.073
X5AJUST2	.465	5.202	.000

Table 21
Results of H3a and H3bTesting: LOVE
(The DSE Model)

	Beta	**t-value**	**Sig.**
X31	-.399	-5.505	.000
X3AJUST1	-.136	-1.732	.087
X3AJUST2	-.459	-5.630	.000
X61	-.326	-3.808	.000
X6AJUST1	-.538	-4.229	.000
X6AJUST2	-.165	-1.815	.073

Table 22
Results of H3a and H3bTesting: RECIPROCITY
(The DSE Model)

	Beta	**t-value**	**Sig.**
YHHAT1	-.390	-1.428	.157
YHSTAR1	-.487	-1.521	.106
YHSTAR2	-.111	-1.201	.233
YWHAT1	-.356	-.910	.365
YWSTAR1	-.196	-1.123	.265
YWSTAR2	-.201	-2.208	.030
YHHAT1*	-.390	-1.428	.157
YHSTAR1*	-.145	-1.797	.079
YHSTAR2*	-.218	-10.51	.000
YWHAT1*	-.359	-.994	.323
YWSTAR1*	-.096	-1.091	.278
YWSTAR2*	-.177	-1.986	.050

*POWER is replaced by INCOME and HOUSEWORK in the corresponding models.

Table 23
Results of H5a and H5bTesting: DECISION HISTORY
(The DSE Model)

	ρ	t-value	Sig.
EW1	-.165	-2.186	.038
EW2	-.135	-2.086	.039
EH1	-.103	-2.324	.024
EH2	-.175	-1.679	.097
Durbin-Watson (EW1)		2.477	
Durbin-Watson (EW1)*		2.505	
Durbin-Watson (EW2)		2.418	
Durbin-Watson (EW2)*		2.457	
Durbin-Watson (EH1)		2.682	
Durbin-Watson (EH1)*		2.712	
Durbin-Watson (EH2)		2.320	
Durbin-Watson (EH2)*		2.396	

*POWER is replaced by INCOME and HOUSEWORK in the corresponding models.

Table 24
Results of H6 Testing: INTERACTION between POWER and LOVE (MANOVA)

1. Main Effect

	Wilk's λ	**F-value**	**Sig.**
X11	.999	.051	.950
X12	.998	.056	.946
X13	.997	.128	.880
X41	.997	.097	.908
X42	.988	.441	.645
X43	.995	.184	.833
X31	.715	14.58	.000
X32	.947	2.034	.138
X33	.693	16.16	.000
X61	.909	3.669	.030
X62	.871	5.415	.006
X63	.987	.465	.630

2. Interaction

X11*X31	.989	.414	.663
X12*X32	.981	.697	.502
X13*X33	.983	.630	.663
X41*X61	.977	.870	.423
X42*X62	.980	.754	.474
X43*X63	.995	.195	.824

Table 25
Results of H7 Testing: INTERACTION between PREFERENCE and LOVE (MANOVA)

1. Main Effect

	Wilk's λ	**F-value**	**Sig.**
X21	.676	17.53.	.000
X22	.702	15.28	.000
X23	.813	8.382	.001
X51	.716	14.48	.000
X52	.789	9.617	.000
X53	.834	7.239	.001
X31	.829	7.503	.001
X32	.781	10.10	.000
X33	.648	19.83	.000
X61	.801	9.049	.000
X62	.729	13.38	.000
X63	.970	1.119	.332

2. Interaction

X21*X31	.818	8.109	.001
X22*X32	.892	4.357	.016
X23*X33	.883	4.814	.011
X51*X61	.886	4.681	.012
X52*X62	.885	4.663	.012
X53*X63	.903	3.925	.024

Table 26
Results of H8 Testing: EFFECTIVENESS OF COERCION
(The Binary Logistic Model)

	B	**Wald**	**Sig.**
YW1	.135	2.295	.107
YW2	.342	2.240	.136
YW3	.067	.481	.488
YH1	-.465	11.77	.000
YH2	-140	2.329	.127
YH3	-494	12.30	.000

Table 27
Convergent Validity of Self-Report Measures of Relative Influence*

1. Internal Disagreement (Between Wives and Husbands)

Family Decision Scenario I:	48.35%
Family Decision Scenario II:	52.75%
Family Decision Scenario III:	42.86%

2. External Disagreement (Between Self-Report Measures and Outcome Measures)

	Wife	Husband
Family Decision Scenario I	77.78%	73.09%
Family Decision Scenario II:	75.00%	63.27%
Family Decision Scenario III	83.72%	60.00%

*N=91

Table 28
Results of H9 Testing: SATISFACTION with DECISION OUTCOME
(The Multiple Regression Model)

	Beta	**t-value**	**Sig.**
YW1	.030	.312	.756
YW2	.031	.279	.781
YW3	.061	.273	.784
YH1	.172	1.817	.073
YH2	.288	1.482	.139
YH3	-021	1.843	.069

Table 29
Results of H10 Testing: SATISFACTION with DECISION PROCESS
(The Multiple Regression Model)

	Beta	**t-value**	**Sig.**
YW1	-.029	-.336	.738
YW2	-.062	-.538	.592
YW3	.133	1.393	.167
YH1	-.232	-2.307	.023
YH2	-.204	-1.756	.083
YH3	-.670	-1.598	.114

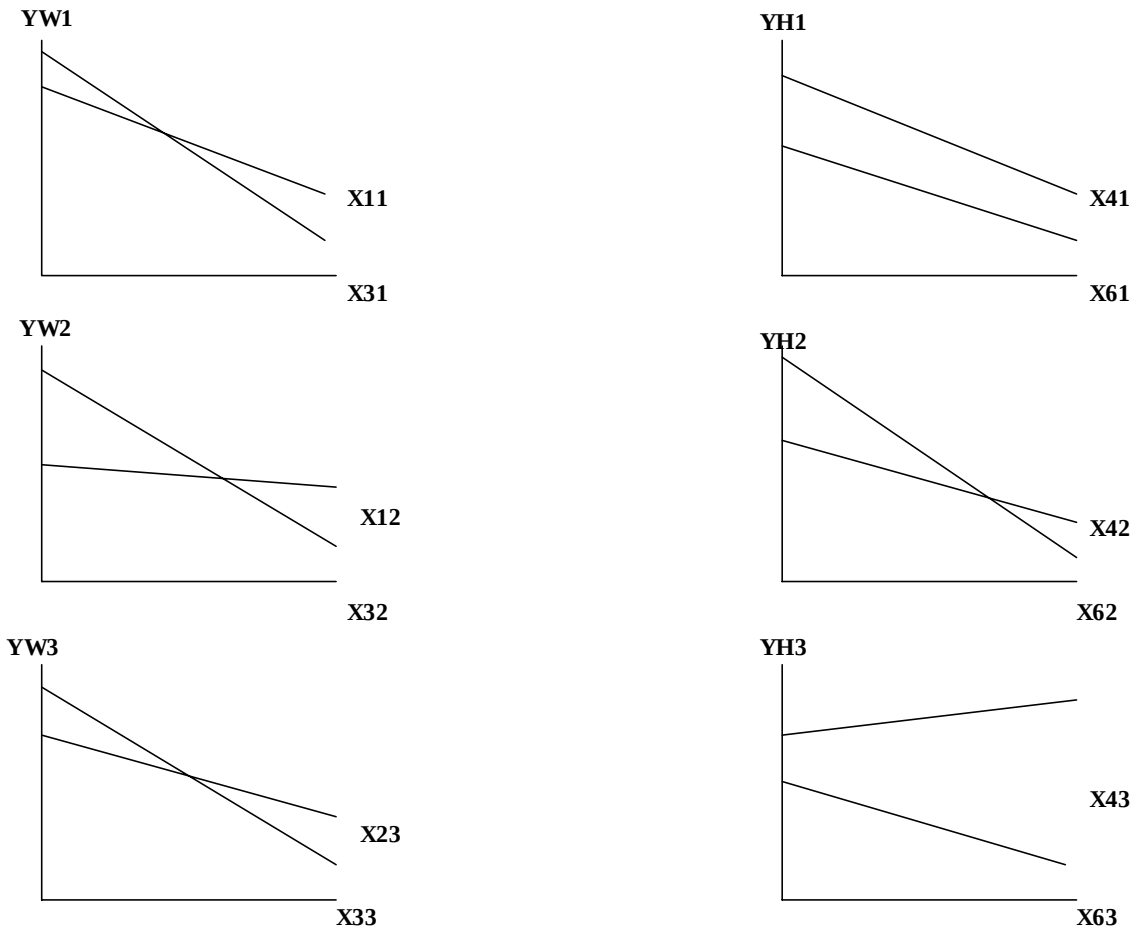

Figure 5.1: Interactions between POWER and LOVE

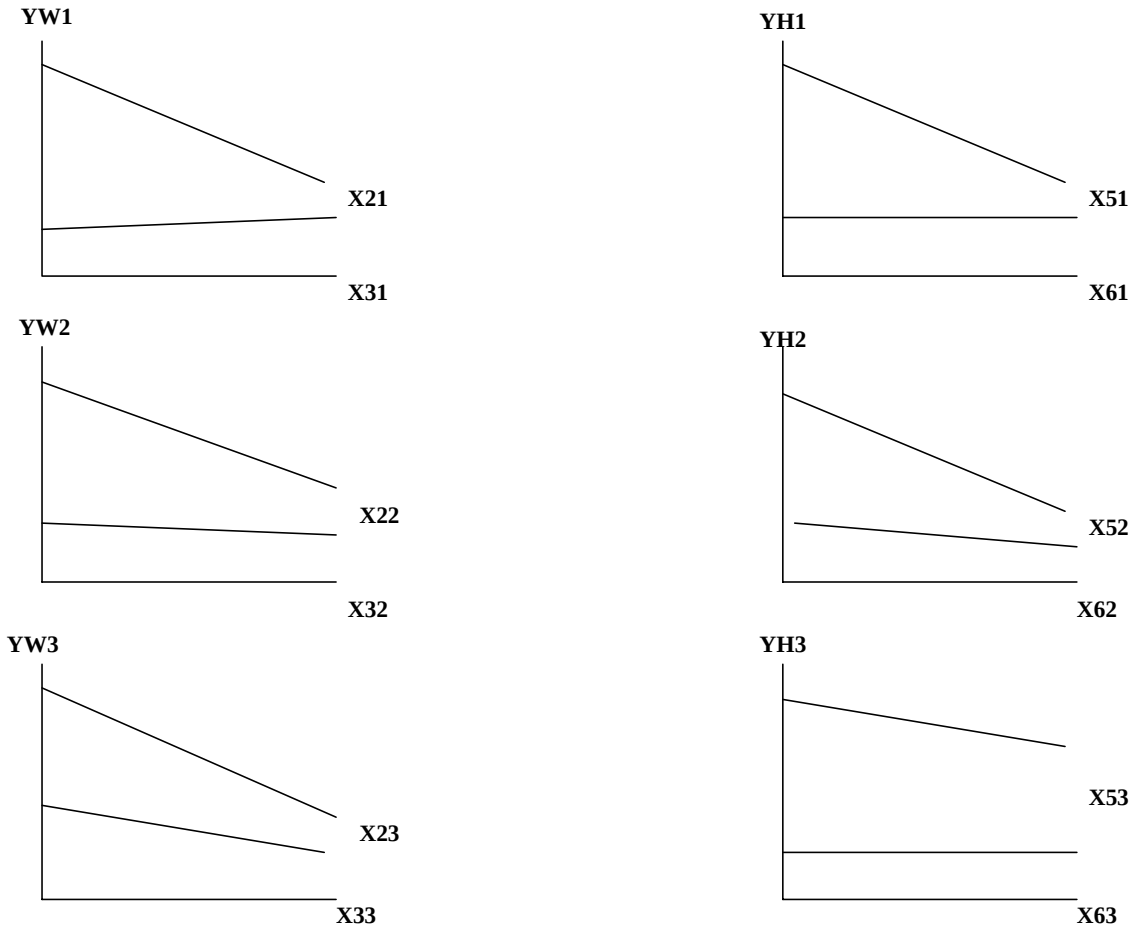

Figure 5.2: Interactions between PREFERENCE and LOVE

5.5 Summary of Hypothesis Testing

In general, the hypothesis tests provided moderate support for the hypothesized model (see table 30 for summary). The unsupported propositions may suggest some issues for future research in this area.

The relationship between power and spousal coercion propensity in joint family decision making was not supported as hypothesized. This might be due to the composition of the construct power which led to misspecification of the statistical models. The decomposition of the construct into spousal income and spousal housework provided some limited improvements on model calibrations.

The relationship between preference intensity and spousal coercion propensity in joint family decision making was supported. This proposes that spouses with stronger preference toward the decision are more likely to use those influence strategies that aim to satisfy only ones' own personal needs in family decision making (Qualls 1988; Thomas 1976).

The relationship between love and spousal coercion propensity in joint family decision making was supported. That is, the more loving spouses are more likely to use non-coercive influence strategies which aim to accommodate both spouses' preferences (Qualls 1988; Thomas 1976). This is in accord with the characteristics of the more loving spouses who are more empathetic and caring for the others' needs (Kelley 1983). However, it seems that love might have structural effects on spousal decision behavior between wives and husbands, suggesting that wives are more love-oriented and thus less likely to use strong means of influence in family decision making. This was revealed by the larger magnitude of most coefficients attached to WLOVE than those attached to HLOVE across the three decision occasions.

The results from the DSE model did not fully support H4a and H4b that spouses' coercion propensities are negatively associated. Although the signs of coefficients were all correct and the magnitudes were substantial, only the third decision occasion showed the significant results for the wife sample. It was suggested that model misspecification and weak degree of coercion among the sample might be the two major reasons causing the nonsignificant pattern. In fact, the decomposition of spousal power into spousal income and spousal housework rendered three coefficients of the six significant. An comparison of coefficients across models indicated that wives seemed to be more liable to yield their way in decision processes than husbands when their partners' coercion propensity were perceived.

The first-order negative serial correlation between spousal coercion propensity in sequential family decision making was supported as hypothesized (H5a and H5b). There were some strong indications that spouses tend not to use strong means of influence continuously in a sequence of decisions. A comparison of ρ's between spouses also revealed that wives seemed to have led the process of considering past powering behaviors. The second-order negative autocorrelation between error terms, however, was not found.

The results from a set of 2x2 unbalanced MANOVAs did not support the interaction between power and love (H6). Both the main effect of power and the interaction with love were

nosignificant. The decomposition of power into income and housework did not improve the results.

The results from a set of 2x2 unbalanced MANOVAs, however, supported the interaction between preference intensity and love (H7). That is, the more loving spouses are more likely to give up their own preferences in favor of the other's needs, more so than the less loving ones. Note that the two covariates, length of marriage (ML) and number of children (NC), were nonsignificant for most cases, evidencing the correct specification of the DSE model excluding these two exogenous variables.

The results from the binary logistic regression model provided partial support for the effectiveness of coercive influence strategies in joint family decision making (H8). The results showed no significant coefficients for wives but two significant coefficients for husbands, suggesting that husbands might be more likely to get their way using coercive influence strategies in joint family decision making. Consistent with the past findings, self-report measures of influence were of low convergent validity and the model using self-report data performed more poorly than those using outcome data.

Finally, results from a set of multiple regressions did not fully support H9 and H10 that spouses who used coercive power strategies are satisfied with the decision outcome but dissatisfied with the decision process. Wives were found not significantly satisfied with the decision outcome and dissatisfied with the decision process when they used coercive influence strategies in family decision making. On the contrary, husbands were basically satisfied with the decision outcome and dissatisfied with the decision process for the most cases. This may suggest that husbands were more likely to get their way using coercion and were more rational toward decision outcomes and processes. A common finding was that spousal use of coercive influence strategies in family decision making contributed negatively to the other spouses' satisfaction toward both the decision outcome and the decision process.

Table 30
Summary of Hypothesis Testing

Hypothesis	Result
H1a: Wife's power is positively related to her coercion propensity.	Not supported
H1b: Husband's power is positively related to his coercion propensity.	Not supported
H2a: Wife's preference intensity is positively related to her coercion propensity.	Supported
H2b: Husband's preference intensity is positively related to his coercion propensity.	Supported
H3a: Wife's love is negatively related to her coercion propensity.	Supported
H3b: Husband's love is negatively related to his coercion propensity.	Supported
H4a: Wife's coercion propensity is negatively related to husband's coercion propensity.	Partially supported
H4b: Husband's coercion propensity is negatively related to wife's coercion propensity.	Partially supported
H5a: Wife's coercion propensity is negatively related to her past use of coercive influence strategies.	Supported
H5b: Husband's coercion propensity is negatively related to his past use of coercive influence strategies.	Supported
H6: Love tends to moderate the effect of power on spousal coercion propensity.	Not supported
H7: Love tends to moderate the effect of preference intensity on spousal coercive propensity.	Supported
H8: Coercive influence strategies are as effective as, if not more effective than, non-coercive influence strategies.	Partially supported
H9: Spouses who used coercive influence strategies are satisfied with the decision outcome.	Partially supported
H10: Spouses who used coercive influence strategies are dissatisfied with the decision process.	Partially supported

Chapter 6 Conclusions

This chapter concludes the research with a summary of findings, implications, limitations, and future research directions. It begins with an overview of the dissertation and a discussion of the major findings. It then provides a set of implications, theoretical and managerial alike. Finally, limitations of this dissertation are identified and directions for future research are proposed.

6.1 Overview of This Dissertation

This dissertation aimed at investigating spousal family decision behavior from a dynamic interaction perspective. Past research on family decision making has focused largely on decision outcomes such as who decides, leaving the decision process unexplained and spousal decision behaviors unknown (Brinberg and Schwenk 1985). This dissertation aimed to fill part of this gap in group decision making in marketing by developing a conceptual model that captures the temporal process of interactions between couples in joint family decision making. Specifically, we hypothesized that in joint family decision making spousal family decision behavior or spousal coercion propensity to resolve conflict would be based on spousal psychological characteristics and conditional on the other spouses' decision behaviors. Drawing upon a multidisciplinary perspective on dyadic conflict management from social psychology, family sociology, and consumer behavior, we investigated the effects of power, love, and preference intensity on spousal coercion propensity. Seeing family decision making as an ongoing interaction between couples, we also investigated the temporal aspect of spousal family decision behavior in a sequence of decisions. Additionally, given the outcome-oriented research in this area, we investigated the effectiveness of coercive influence strategies and spousal satisfaction toward the decision outcome and process. In summary, this conceptual model of spousal family decision behavior tried to identify the dynamics of family decision making in terms of both the decision process and decision outcome.

A conjoint study using a sample of married faculty from a large southeastern university was conducted to operationalize the conceptual model. The procedures followed those in the Revealed Difference Technique (RDT) (Strodtbeck 1951) which are suitable for uncovering the dynamic interactions between couples. Three hypothetical family decision scenarios were developed which included a family vacation, a family elegant dinner, and a family music event. An inductive influence strategy scale was developed to measure spousal family decision behavior in terms of their coercion propensity. Previous studies from social psychology, family sociology, and consumer research evidenced the validity of this conjoint-type of study in uncovering subjects' coercive decision behavior.

Data were analyzed using a dynamic simultaneous equations model (DSE), a set of MANOVAs, a set of binary logistic regression models, and a set of multiple regression models. To deal with the simultaneity and autoregression, the dynamic simultaneous equations model was calibrated via an Autoregressive Two-Stage Least Squares (A2SLS) approach (Stewart and Wallis 1981). The major findings of the study are discussed in the following section.

6.2 Discussion of Major Findings

Several major findings of this dissertation are worth further discussion in this section. First, power was found not to affect spousal coercion propensity in family decision making. For decades, research on power has found that power as ability to influence does affect people's decision behavior. For example, the previous studies from social psychology found a positive relationship between power and coercion (Cartwright 1965; Kipnis 1976; Molm 1997; Tedeschi and Felson 1994), whereas channel literature has recently found the converse from a long-term perspective (Frazier et al. 1989; Frazier and Rody 1991). However, power in families has long been considered elusive concerning its abuse in family decision making (Turk 1975). The results of this dissertation provided new evidence confirming its conceptual and methodological difficulties (Cronwell and Olson 1975; McDonald 1980). Given the multidimensional nature of power, the measurement of power seemed problematic in the present study. Power measured on different power bases tended to give divergent predictions (Webster 1997). For example, power measured on spousal income and housework seemed not to make the construct important in predicting spousal decision behavior in light of the nonsignificant results. From a power-dependency paradigm, however, if we enlarge the construct by including spousal emotional or psychological dependency, such as love, as a new dimension, as suggested by Safilios-Rothschild (1976), power measured on emotional dependency dimension will have higher construct validity as suggested by the findings regarding love in this dissertation. The negative relationship between love and spousal coercion was consistent with the predictions of the theories of love in family sociology (Kelley 1983; Godwin and Scanzoni 1989). In sum, the nonsignificant results of power in this research illuminate on the theoretical development of this construct in family decision making context.

Second, the interaction effects found in this dissertation are interesting. The interaction between power and love was not significant. This might be because the effect of power in predicting spousal decision behavior was itself nonsignificant. However, the interaction between preference and love was highly significant. This implies that the more loving spouses who are more emotionally dependent on their partners are more likely to forgo their personal preferences in favor of their partners' decision objectives, more so than the less loving spouses. Furthermore, this suggests that influence is not a function of a single variable as the outcome-oriented studies have assumed. Although spouses with stronger preference toward the decision outcome are more likely to use power, the mere identification of preference intensity is inadequate to identify the influential spouses, for many other factors such as love may moderate spousal influence attempts in the decision process. In other words, we cannot infer family power merely using the decision outcomes as consumer researchers commonly assume (Arora et al. 1998; Krishnamurthi 1981, 1988). Beyond question, this finding is of both conceptual and managerial implications in marketing.

Third, family decision making is ongoing interactions between couples (Bringberg and Schwenk 1985), in which spouses tend not to reciprocate negative act (Gottman 1979; Raush et al. 1974). Although only part of the coefficients was significant, the correct negative signs and substantial magnitude of the coefficients across three decision occasions signified this spousal reciprocal behavior pattern in joint family decision making. This finding suggests that given the decision alternatives, spouses with stronger preference may get his/her way using the strong means of influence rather than by means of power such as authority and expertise. This means the

influential spouse is not necessarily the *powerful* spouse but the spouse who has the perceived stronger preference toward the decision outcome. The underlying mechanism is that the sense of equity ensures that the spouse who cares less perceives the higher importance of his/her partner's decision goal so that he/she would refrain from using power (Burns and Granbois 1977; Corfman and Lehmann 1987). Interestingly, based on the magnitude of coefficients across three decisions, wives were found more likely to yield their way perceiving their husbands' coercion propensity during the interactive decision making process.

Fourth, spousal family decision behavior has a clear temporal pattern in a sequence of decisions. The first-order autoregressive model gave a set of significantly negative ρ's between couples in a sequence of three family decisions. The previous studies found that spouses tended to equalize wins over time using decision history (Corfman and Lehmann 1987; Scanzoni and Polonko 1980). The findings from the present research further confirmed that spouses in joint family decision making tended to alternate the uses of power sequentially, explaining why spouses could equalize wins over time. Obviously, this finding touched on not only the decision outcome (who wins) but also the decision process (how he/she wins) in a sequence of decisions. The effects of decision history can be thought of as being particular for family decision processes given the stronger sense of overall fairness built on family bonds. This implies that the *powerful* spouses cannot always be the *influential* spouses; rather, the *powerless* spouses may be more *influential* if their preferences are perceived to be stronger (Corfman and Lehmann 1987). This pattern of spousal decision behavior again signifies that either power or preference is not the sole determinant of influence; their combination together with other elements such as love, equity, decision history, etc. may have larger predictive power.

Fifth, the coercive influence strategies are effective in a specific decision occasion. Although not all coefficients were significant, the correct positive signs and magnitude of coefficients across the three decision occasions suggested this pattern. This finding fills the gap as to why spouses win a specific decision given their preferences or power in the previous studies (e.g., Corfman and Lehmann 1987). However, from a dynamic interaction point of view, coercive strategies may not always be effective because frequent uses of coercion violate the norm of equity. This can be shown by the significant results that spouses, wives and husbands alike, were dissatisfied with their partners' uses of coercive strategies. Interestingly, coercive strategies were found more effective for husbands (this was indicated by two significant results with husbands) and they demonstrated corresponding satisfaction toward the decision outcomes and dissatisfaction toward the decision processes. This result was consistent with Kim and Lee's (1996) finding that the dogmatic husbands had a greater influence over the decision to purchase a house.

6.3 Theoretical Implications

Overall, this dissertation contributes to better understanding how families reach decisions (Davis 1976). A "black box" model of family decision making is blind to decision process in which preference conflict is resolved and final decision reached. This dissertation conceptualizes family decision making as a two-person accommodative process in which the irreconcilable preference conflict is resolved by a variety of influence strategies (Davis 1976). More specifically, this accommodative decision process is seen as ongoing interactions between couples in which spouses "muddle through" the process by first pursuing their own preferences

(Park 1982). The avoidance of conflict is the norm of spousal family decision behavior (Blood 1960; Spiro 1983; Raush et al. 1974) and spouses tend not to reciprocate coercive influence strategies to avoid conflict spiral (Gottman 1979). Therefore, joint family decision making is interactive in that non-coercive influence attempts may induce cooperation while coercive influence attempts may instead result in avoidance of conflict, not as the reciprocal action theory predicts. This is consistent with Granbois' (1971) conceptualization of household conflict resolution as the process of concession, sequential compromise, half-way compromise, creative compromise, and arbitrary criteria.

Furthermore, joint family decision making is conceptualized as temporal in terms of the "carry-over" effects in spousal sequential decision behaviors. Decision history may serve as an important criterion for spouses to choose conflict resolution modes. It was, for example, found that spouses tended not to use strong means of influence too frequently in a sequence of decisions. The motivation for spouses to behave so in sequential family decision making may be based on spousal sense of overall fairness in marriage or changing preferences. This warrants further studies in this regard. In sum, conceptualization of joint family decision making as a dynamic interactive process contributes to understanding why spouses decide, how they decide, and when they decide.

Second, this dissertation contributes to identifying more dimensions of the construct power in families. From a power-dependency paradigm (Emerson 1962), spousal emotional dependency on their partners can be thought of as adding to their partners' marital power (Safilios-Rothschild 1976). It was found that power measured on spousal economic dependency or household maintenance needs or both was not significant in predicting spousal family decision behaviors. However, the construct measured on emotional dependency or love was found highly significant in predicting spousal family decision behaviors. This suggests that if we include spousal emotional dependency as one major element in formulating family power, family power would become an appropriate construct in family decision studies, accurately predicting spousal family decision behaviors in several aspects. For example, we may predict that the more powerful spouses will be more influential in family decision making, because the less powerful, or more loving, spouses are more likely to yield in the decision process, as we have found in this study. This, without doubt, represents an interesting direction for future research.

Third, this dissertation contributes to developing a concise influence strategy scale for household conflict management studies. The previous studies in household conflict resolution either relied on deductive influence strategy scales that lack the construct validity or used lengthy inductive influence strategy scales that may induce invalid responses (Nelson 1988; Kim and Lee 1996). The present study combined two composite inductive influence strategy scales in family decision making (Nelson 1988; Spiro 1983) and purified them into a concise scale containing only 12 strategies. This shorter scale may encourage precise and accurate responses from subjects and facilitate the studies in this under-researched area.

Finally, the classification of power strategies using factor analysis into coercive and non-coercive strategies may facilitate research on interactive aspects of joint family decision making. This taxonomy of power strategies has been popular in social psychology, game theory, and marketing

channel in investigating interactions between decision makers in a dyadic relationship (cf. Frazier and Summers 1984, 1986; Luce and Raiffa 1957; Molm 1997; Tedeschi and Felson 1994; Thomas 1976, 1978). Given the accommodative nature in joint family decision making, classification of influence strategies into two exclusively opposite types may be conducive in uncovering the behavioral reciprocity between couples in household conflict resolution processes.

6.4 Managerial Implications

The managerial implications of the major findings in this dissertation center on understanding the decision outcomes and preference dynamics from an ongoing interaction perspective. One of the most important tasks in marketing is to identify the influential spouses in family purchase decision making so that effective marketing strategies can be designed (Corfman 1991; Filatraut and Ritchie 1980; Munsinger et al. 1975). However, the "black box" model of family decision making can only provide uninformative messages about the influential spouses, because spousal influences are decision specific and changeable over time. Without understanding the decision processes in which spouses get their way using a variety of influence strategies, there is no way in understanding relative influence and identifying the influential spouses accordingly. For example, marketers may think of the powerful spouses or spouses with strong preference as the influential spouses based on the traditional functional relationships between power and relative influence or between preference and relative influence (cf. Davis 1976; Qualls 1987). However, according to the findings from this dissertation as to spousal behavioral reciprocity, we may identify the powerless spouses or spouses with weaker preference as the influential spouses. The reason is that the more loving spouses, though with strong stake in the decision, may forgo their preference in favor of their partners' decision objectives, or the more loving spouses may consider the less powerful spouses' strong preference and yield their way accordingly. Therefore, it is imperative for marketers to understand the behavioral interactions between couples in decision processes before the effective marketing strategies can be designed.

Second, marketers should also understand the dynamic of family decision making based on spousal decision history. Spouses cannot always be influential with static influence pattern. Spousal current decision behaviors are affected by past decision behaviors and form the basis for future interactions. The underlying mechanism as found in this research is that spouses tend not to keep using power in a sequence of decisions. This "carry-over" effect of spousal decision history is interesting for marketers to adjust their marketing strategies. For example, given the sales domain, door-to-door sales persons can solicit to different spouses based on their sales history and spousal decision history so that the right influential decision-maker can be effectively identified. Note that wives were found to be more likely to yield their way and lead the concession in decision interactions. Conversely, husbands are tougher and more likely to use strong means of influence in joint family decision making. This gender difference in spousal decision behavior should guide the design of appropriate marketing strategies.

6.5 Limitations

The first limitation of this research lies in the sampling bias. Overall, an upscale sample was drawn using a directory of faculty members in a large eastern university as the sampling frame. As a result, the couples who participated in this study were not representative in terms of their

educational backgrounds and income levels. A salient characteristic of this sample is the above average education and income levels with husbands having much higher income than that of wives. Therefore, this upscale sample is basically husband-dominant or patriarchal and family decision making is characterized by few influence attempts and more wives' concessions (Komarovsky 1969). Furthermore, the generality of the findings of this dissertation is limited.

The second limitation of this research relates to the small effect size. That is, the spousal coercion propensity is relatively weak or the difference scores between spousal coercion and non-coercion are relatively small. This weak effect size might result from the biased sample and hypothetical decision topics. As mentioned above, the sample is skewed to an upscale one and spouses may have weak motivation to influence because of the husbands' dominance in family decision making. Actually, only 24.54% of wives' decisions and 26% of husbands' decisions were explicitly coercive. Even though the realism check and manipulation check showed that the decisions were felt practical and realistic, the motivation for those couples to make these decisions were probably weaker than in the real decision making, let alone their coercion propensity.

The third limitation of this research pertains to the low construct validity of power. Power as one of the major predictors in this research was found not related to spousal coercion propensity as many previous studies in social psychology and marketing channel posited. The composition of power was problematic and the main component of power in families needs further investigation.

6.6 Future Research

Aside from the directions for future research that are related to the limitations of this research, that is, augmenting effect size by using a more representative sample and real decisions, and refining power construct, several other directions merit our attention. First, a multi-stage decision perspective on household conflict resolution can be pursued. In this dissertation, joint family decision was implicitly simplified as one-stage process and the overall preference conflict was assumed. In reality, joint family decision making process can be seen to proceed through multiple levels or stages. Several models have thus been developed to accord with this multi-stage family decision process. For example, the most popular model includes three stages: problem recognition, external information search, and final decision (cf. Davis and Rigaux 1974; Sheth 1974). The degrees of preference conflict may vary across different stage and as such decisions made during one stage may affect decision behavior in subsequent stages (Qualls 1988). Therefore a multi-stage decision perspective can capture varying extents to which spouses interact to resolve preference conflict at different decision stages.

Second, a cross-cultural study of spousal decision behavior can be carried out. Spousal family decision behavior is culture specific and couples from different cultures will have different interaction patterns in family decision making (Ford et al. 1995). A comparative study can not only compare spousal family decision behaviors across cultures but can also cross-validate the influence strategy scale, thus facilitating the power strategy scale development.

Third, a hierarchical Bayesian approach can be used to calibrate the dynamic simultaneous equations model (DSE). The advantages of employing a Bayesian model lie in not only its

statistical power and small sample size but also its function to uncover spouse-level estimates for all model parameters. As such, we are in a position to look at spousal decision behavior for each household (cf. Rossi and Allenby 1993), and we can tailor marketing strategies to specific households, whereby facilitating personal selling or direct mail sales.

References

Aida, Yikie and Toni Falbo (1991), "Relationships between Marital Satisfaction, Resources, and Power Strategies," *Sex Roles*, Vol. 24, 43-56.

Alderson, Wroe (1957), *Marketing Behavior and Executive Action*, Homewood, IL: Richard D. Irwin.

Allenby, Greg M., Neeraj Arora, and James L. Peter (1995), "Incorporating Prior Knowledge into the Analysis of Conjoint Studies," *Journal of Marketing Research*, 32 (May), 152-62.

Amemiya, T. (1966), "Specification Analysis in the Estimationof Parameters of a Simultaneous Equations Model with Autoregressive Residuals," *Econometrica*, 34, 283-306.

Arora, Neeraj, Greg M. Allenby, and James L. Ginter (1998), "A Hierarchical Bayes Model of Primary and Secondary Demand," *Marketing Science*, Spring, 17, 29-44.

Axelrod, R. (1967), "Conflict of Interests: An Axiomatic Approach," *Journal of Conflict Resolution*, 11, 87-99.

Bacharach, Samuel B. and Edward J. Lawler (1981), *Bargaining: Power, Tactics and Outcomes*, San Francisco, CA: Jossey-Bass.

—— (1980), *Power and Politics in Organizations*, San Francisco, CA: Jossey-Bass.

Bachrach P. and M.S. Baratz (1963), "Decisions and Non-Decisions: An Analytical Framework," *American Political Science Review*, 57, 632-42.

Backer, H.S. (1960), "Notes on the Concept of Commitment," *American Journal of Sociology*, 66, 32-40.

Bannister, E. (1969), "Sociodynamics: An Integrative Theory of Power, Authority, Influence, and Love," *American Sociological Review*, 34 (June), 374-93.

Becker, G. S. (1994), *A Treaties on the Family*, Harvard University Press.

Beckman-Brindley, S. and J.B. Tavormina (1978), "Power Relationship in Families: A Social Exchange Perspective," *Family Process*, 17, 423-36.

Belch, Michael A., George E. Belch, and Donald Sciglimpaglia (1980), "Conflict in Family Decision Making: An Exploratory Investigation," in *Advances in Consumer Research*, Vol. 7, Jerry C. Olson ed., Ann Arbor MI: Association for Consumer Research, 475-479.

Ben-Akiva, Moshe and Steven Lerman (1985), *Discrete Choice Analysis: Theory and Application to Travel Demand*, Cambridge, MA: The MIT Press.

Berger, C.R. (1995), "Inscrutable Goals, Uncertain Plans, and the production of Communication Action," in *Communication and Social Influence Processes*, Charles et al. Ed., MI: Michigan State University Press.

Berscheid, E. and E. A. Walster (1974), "A Little Bit about Love," in *Foundations of Interpersonal Attraction*, T. L. Huston, ed., New York: Academic Press.

Bhatnagar, D. (1993), "Interdepartmental Conflict in Organizational Buying: The Impact of the Organizational Context," *Journal of Marketing Research*, 28 (May), 145-59.

Bierstedt, R. (1950), "An Analysis of Social Power," *American Sociological Review*, 6, 7-30.

Bird, G.W. and K. Melville (1994), *Families and Intimate Relationships*, NY: McGraw-Hill, Inc.

——, S.M. Stith, and J. Schladale (1991), "Psychological Resources, Coping Strategies, and Negotiation Styles as Discriminators of Violence in Dating Relationships," *Family Relations*, 40, 45-50.

Blalock, H.M. and P.H. Wilken (1979), *Intergroup Processes*, NY: Free Press.

Blau, Peter M. (1964), *Exchange and Power in Social Life*, New York: Wiley.

Blood, Robert P., Jr. (1960), "Resolving Family Conflicts," *Journal of Conflict Resolution*, 4 (June), 209-219

—— and Donald M. Wolfe (1960), *Husbands and Wives: The Dynamics of Married Living*, Glencoe, Ill.: The Free Press.

Bonfield, E. H., C. Kaufman, and S. Hernandez (1984), "Household Decisionmaking: Uinits of Analysis and Decision Processes," in Mary Lou Roberts and Lawrence H. Wortzel (eds.), *Marketing to the Changing Household*, Cambridge, MA: Ballinger Publishing CO.

Brinberg, David and Nancy Schwenk (1985), "Husband-Wife Decision Making: An Exploratory Study of the Interaction Process," in *Advances in Consumer Research*, Vol. 12, eds. Elizabeth Hirschman and Morris B. Holbrook, Provo, UT: Association for Consumer Research.

Burns, A. C. and D. H. Granbois (1977), "Factors Moderating the resolution of Preference Conflict in Family Automobile Purchasing," *Journal of Marketing Research*, 16 (February), 77-86.

Buss, W. C. and C. Schaninger (1982), "The Influence of Sex Roles on Family Decision Processes and Outcomes," in *Advances in Consumer Research*, Vol. 10, Alice Tybout and Richard Baggozzi ed., Ann Arbor: Association for Consumer Research.

Cartwright, Dorwin (1959), *Studies in Social Power*, The University of Michigan Press.

Christensen, A. (1987), "Detection of Conflict Patterns in Couples," in *Understanding Major Mental Disorder: The Contribution of family Interaction Research*, K. Hahlweg and M.J. Goldstein ed., NY: Family Process Press.

—— (1988), "Dysfunctional Interaction Patterns in Couples," in *Perspectives on Marital Interaction*, P. Noller ed., Philadelphia: Multilingual Matters.

Clark, Ruth Anne (1979), "The Impact on Selection of Persuasive Strategies of Self-Interest and Desired Liking," *Communication Monographs*, 46 (November), 257-73.

Cody, M.J., M.L. McLaughlin, and W.J. Jordan (1980), "A Multidimensional Scaling of Three Sets of Compliance Gaining Strategies," *Communication Quarterly*, 3, 34-46.

Coleman, James S. (1966), Foundations for a Theory of Collective Decisions," *the American Journal of Sociology*, 121 (6), 615-626.

—— (1973), *The Mathematics of Collective Action*, Chicago: Aldine.

Collins, R. (1988), *Sociology of Marriage and the Family: Gender, Love, and Property*, Chicago: Nelson-Hall.

Corfman, Kim P. (1990), "Methodological Problems in Survey and Experimental Research on Family Choice Processes," in *Advances in Consumer Research*, Vol. 17, eds. M. E. Goldberg, G. Gorn, and R. W. Pollay, Provo UT: Association for Consumer Research.

—— (1991), "Perceptions of Relative Influence: Formation and Measurement," *Journal of Marketing Research*, 28 (May), 125-136.

—— and Donald R. Lehmman (1987), "Models of Cooperative Group Decision-Making and Relative Influence: An Experimental Investigation of Family Purchase Decisions,"*Journal of Consumer Research*, 14 (June), 1-13.

Cromwell, Ronald E. and David Olson (1975), *Power in Family*, New York: Halsted Press.

——, D. M. Klein, and S. G. Wieting (1975), "Family Power: A Multitrait-Multimethod Analysis," in *Power in Families*, R. E. Cromwell and D. H. Olson ed., New York: John Wiley & Sons.

Dahl, Robert A. (1959), "The Concept of Power," *Behavioral Science,* 2, 201-218.

Davis, Harry L. (1970), "Dimensions of Marital Roles in Consumer Decision Making," *Journal of Marketing Research,* 7, 168-177.

——— (1976),"Decision Making within the Household," *Journal of Consumer Research*, 2 (March), 241-260.

——— and B. Rigaux (1974), "Perception of Marital Roles in Decision Processes," *Journal of Consumer Research*, 1 (June), 51-62.

———, Stephen J. Hock, and E. K. Easton Ragsdale (1986), "An Anchoring and Adjustment Model of Spousal Predictions," *Journal of Consumer Research*, 13 (June), 25-37.

Deutsch, Morton (1973), *The Resolution of Conflict*, New Haven, CT: Yale University Press.

——— (1969), Socially Relevant Science: Reflections on Some Studies of Interpersonal Conflict," *American Psychologist*, 24, 1076-1092.

——— and R.M. Krauss (1962), "Studies of Interpersonal Bargaining, " *Journal of Conflict Resolution,* 6, 52-76.

Dowd, J.J. (1975), "Aging as Exchange: A Preface to Theory," *Journal of Gerontology*, 30, 584-94.

Dwyer, F. Robert and Orville Walker (1981), "Bargaining in an Asymmetrical Power Structure," *Journal of Marketing*, 45 (Winter), 104-15.

Edwards, W. (1954), "The Theory of Decision Making," *Psychological Bulletin*, 51, 380-417.

El-Ansary, Adel and Louis Stern (1972), "Power Measurement in the Distribution Channel," *Journal of Marketing Research,* 9 (February), 47-52.

Emerson, Richard (1962), "Power-Dependence Relations," *American Sociological Review*, 27, 31-41.

——— (1972a), "Exchange Theory, Part I: A Psychological Basis for Social Exchange," in J. Berger, M. Zelditch, and B. Anderson ed., *Sociological Theories in Progress*, Boston: Houghton Mufflin.

——— (1972b), "Exchange Theory, Part I: Exchange Relations and Network,", in J. Berger, M. Zelditch, and B. Anderson ed., *Sociological Theories in Progress,* Boston: Houghton Mufflin.

——— (1976), “Social Exchange Theory,” in *Annual Review of Sociology*, eds. A. Inkeles, J. Coleman and N. Smelser, Palo Alto, Calif: Annual Review.

Falbo, Toni (1977), “Multidimensional Scaling of Power Strategies,” *Journal of Personality and Social Psychology*, 35 (8) August, 537-547.

——— and L. A. Peplau 91980), “Power Strategies in Intimate Relationships,” *Journal of Personality and Social Psychology*, 38, 618-628.

Felson, M. (1983), “Aggression and Violence between Siblings,” *Social Psychology Quarterly*, 46, 271-285.

Filitrault, Pierre and J. R. Brent Ritchie (1980), “Joint Purchase Decisions: A Comparison of Influence Structure in Family and Couple Decision-Making Units,” *Journal of Consumer Research*, 7 (September), 131-140.

Fischer, C.S. (1969), “The Effect of Threats in an Incomplete Information Game,” *Sociometry*, 32, 301-314.

Foa, E. B. and U. G. Foa (1974), “Resource Theory of Social Exchange,” in *Contemporary Topics in Social Psychology*, eds. J.W. Thibaut, J. T. Spence, and R.C. Carson, Morristown, NJ: General Learning Press.

——— (1973), *Social Structures of the Mind*. Springfield, Ill.: Charles C Thomas.

Ford, J. B., M. S. LaTour, and T. L. Henthorne (1995), “Perception of Marital Roles in Purchase Decision Processes: A Cross-Cultural Study,” *Journal of the Academy of Marketing Science*, 23 (2), 120-131

Frazier, Gary (1983), “On the Measurement of Interfirm Power in Channels of Distribution,” *Journal of Marketing research*, 20(May), 158-126

——— , James D. Gill, and Sudhir H. Kale (1989), “Dealer Dependence Levels and Reciprocal Actions in a Channel of Distribution in a Developing Country,” *Journal of Marketing*, 53 (January), 50-69.

——— and R. C. Rody (1991), “The Use of Influence Strategies in Interfirm Relationships in In dustrial Product Channels,” *Journal of Marketing*, 55 (January), 52-69.

——— and John O. Summers (1986), “Perceptions of Interfirm Power and Its Use within a Franchise Channel of Distribution,” *Journal of Marketing Research*, 23 (May), 169-76.

——— and John O. Summers (1984), “Interfirm Influence Strategies and Their Application within Distribution Channels,” *Journal of Marketing*, 48 (Summer), 43-55.

French, John R. P., Jr. and Bertram Reven (1959), "The Base of Social Power," in *Studies in Social Power*, eds. Cartwright, Dorwin, The University of Michigan Press.

Gaski, John F. (1987), "The History of the Measurement of Power in Marketing Channels," in *Review of Marketing*, eds. M. J. Houston, Chicago: American Marketing Association, 67-89.

Godwin, Deborah D. and Jone. Scanzoni (1989), "Couple Decision Making: Commonalties and Differences Across Issues and Spouses," *Journal of Family Issues*, 10, 291-310.

Goodstadt, B. E. and L. A. Hjelle (1973), "Power to the Powerless: Locus of Control and the Use of Power," *Journal of Personality and Social Psychology*, 27, 190-196.

—— and D. Kipnis (1970), "Situational Influences on the Use of Power," *Journal of Applied Psychology*, 54, 201-207.

Gottman, J.M. (1979), *Marital Interaction: Experimental Investigations*, New York: Academic Press.

Gouldner, A. W. (1960), "The Norm of Reciprocity: A Preliminary Statement," *American Sociological Review*, 25, 161-78.

Granbois, Donald H. (1968), "Improving the Study of Customer in-Store Behavior," *Journal of Marketing*, 32, 28-33.

—— (1971), A Multi-level Approach to Family Role Structure Research," in *Proceedings of the Second Conference of the Association for Consumer Research*, D. M. Gardner, ed., Association for Consumer Research, College Park, MD< 99-107.

Guerin, B. (1995), "Social Influence in One-to-One and Group Situations: Predicting Influence Tactics from Basic Group Processes," *Journal of Social Psychology*, 135(3), 371-85.

Hays, R. (1985), "A Longitudinal Study of Friendship Development," *Journal of Personality and Social Psychology*, 48(April), 909-24.

Heavey, C. L., A. Christensen, and N.M. Malamuth (1995), "The Longitudinal Impact Demand and Withdrawal during Marital Conflict," *Journal of Consulting and Clinical Psychology*, 63, 797-801.

——, C. Layne, and A. Christensen (1993), "Gender and Conflict Structure in Marital Interaction: A replication and Extension," *Journal of Consulting and Clinical Psychology*, 61, 16-27.

Heer, D. M. (1963), "The Measurement and Bases of Family Power: An Overview," *Marriage and Family Living*, 25, 133-39.

Heirschman, A. O. (1970), *Exit, Voice, and Loyalty: Responses to Decline in Firms,* O*rganizations and States.* Cambridge, Mass., Harvard University Press.

Hicks, J. R. (1963), *The Theory of Wages* (2nd ed.), NY: St. Martin's Press.

Hoffman, S. B. (1982), *The Interpersonal Influence Strategies of Adult Cohorts*, Unpublished Dissertation, Pennsylvania State University.

Homans, G. C. (1961), *Social behavior: Its Elementary Forms*, NY: Harcourt, Brace&World.

—— (1974), *Social Behavior: Its Elementary Forms*, rev. ed., New York: Harcourt, Brace.

Huston, Ted L. (1983), "Power" in *Close Relationships,* ed., Harold Kelley et al., New York: W. H. Freeman, 169-218.

Jaworski, B. J., D. J. Maclnnis, and W. J. Sauer (1984), "Influence, participation, and Investment in Family Decisionmaking," in Mary Lou Roberts and Lawrence H. Wortzel (eds.), *Marketing to the Changing Household*, Cambridge, MA: Ballinger Publishing CO.

Kahneman, D. and C. Varey (1991), "Notes on the Psychology of Utility," in *Interpersonal Comparisons of Well-being*, J. Elster and J.E. Roemer, ed., Cambridge: Cambridge University Press.

Kale, S. H. (1986), "Dealer Perceptions of Manufacturer Power and Influence Strategies in a Developing Country," *Journal of Marketing Research,* 23 (November), 387-93.

Kasulis, J. and R. Spekman (1980), "A Framework for the Use of Power," *European Journal of Marketing*, 14 (4), 180-91.

Kelley, Harold H. (1983), "Love and Commitment," in *Close Relationships,* eds. Harold Kelley et al., New York: W. H. Freeman, 265-314.

—— and John W. Thibaut (1978), *Interpersonal Relations: A Theory of Interdependence*, New York: Wiley.

Kelman, H.C. (1961), "Processes of Opinion Change," *Public Opinion Quarterly*, 25 (Spring), 57-78.

Kenkel, W. F. (1961), "Sex of Observer and Spousal Roles in Decision-Making," *Marriage and Family Living*, 23, 185-186.

Kim, Chankon and Hanjoon Lee (1996), "A Taxonomy of Couples Based on Influence Strategies: The Case of Home Purchase," *Journal of Business Research*, 36, 157-168.

Kipnis, David (1976), *The Powerholders*, Chicago: University of Chicago Press.

——, E. Cohn, and R. Catalano (1979), "Power and Affection," paper presented at the Eastern Psychological Association Meeting, Philadelphia, PA.

——, S.M. Schmidt (1983), "An Influence Perspective on Bargaining within Organizations," *Negotiating in Organizations*, M.H. Bazerman ed., Beverly Hills, CA: Sage, 303-319.

——, S.M. Schmidt, and I. Wilkinson (1980), "Intraorganizational Influence Tactics: Explorations in Getting One's Way," *Journal of Applied Psychology*, 65 (4), 440-452.

Kirchler, E. (1993), "Spouses' Joint Purchase Decisions: Determinants of Influence Tactics for Muddling through the Process," *Journal of Economic Psychology*, 14, 405-38.

—— (1990), "Spouses' Influence Strategies in Purchase Decisions as Dependent on Conflict Type and Relationship Characteristics," *Journal of Economic Psychology*, 11, 101-18.

—— (1988), "Diary Reports on Daily Economic Decisions of Happy versus Unhappy Couples," *Journal of Economic Psychology*, 9, 327-57.

Klinetob, N.A. and D.A. Smith (1996), "Demand-Withdraw Communication in Marital Interaction: Tests of Interpersonal Contingency and Gender Role Hypotheses," *Journal of Marriage and family*, 58 (November), 945-957.

Kmenta, E. (1985), *Elements in Econometrics*, NY: Free Press.

Kochan, T. A. (1980), *Collective Bargaining and Industrial Relations: From Theory to Policy and Practice*, Homewood, IL: Richard D. Irwin, Inc.

Komarovsky, M. (1969), "Class Differences in Family Decision-making on Expenditures," in *Household Decision-Making*, N.N. Foote ed., New York University Press.

Komter, A. (1991), "Gender, Power and Feminist Theory," in *The Gender of Power*, Davis et al. Ed., CA: Sage Publications

Konig, R. (1957), "Family and Authority: The German Father in 1955," *Sociological Review*, 5, (July), 107-127.

Krishnamurthi, L. (1988), "Conjoint Models of Family Decision Making," *International Journal of Marketing Research*, 5, 185-98.

Lee, W. (1971), *Decision Theory and Human Behavior*, NY: Wiley.

Lenk, P. J., W. S. DeSarbo, P.E. Green, and M.R. Young (1996), Hierarchical Bayes Conjoint Analysis: Recovery of Partworth Heterogeneity from reduced Experimental Designs," *Marketing Science*, 15 (2), 173-191.

Lewin, K. (1951), *Field Theory in Social Science*, New York: Harper & Row.

Luce, R. D. and H. Raiffa (1957), *Games and Decisions: Introduction and Critical Survey*, New York: Wiley.

Madrigal, Robert and Christopher M. Miller (1996), "Construct Validity of Spouses' Relative Influence Measures: An Application of the Direct Product Model," *Journal of the Academy of Marketing Science*, 24 (Spring), 157-170.

Malhotra, N.K. (1998), *Marketing Research: An Applied Orientation*, New Jersey: Prentice Hall.

March, J.G. (1955), "An Introduction to the Theory and Measurement of Influence," *American Political Science Review*, 49, 431-451.
—— and H.A. Simmon (1958), *Organizations*, NY: Wiley.

Marwell, G. and D. R. Schmitt (1967), "Dimensions of Compliance-Gaining Behavior," *Sociometry*, 30, 350-364.

McDonald, Gerald W. (1980), "Family Power: The Assessment of a Decade of Theory and Research, 1970-1979," *Journal of Marriage and the Family*, 42, 841-854.

McKinley, D.G. (1964), *Social Class and family Life*, Glencoe, IL: Free Press.

Menasco, Michael B. and David J. Curry (1989), "Utility and Choice: An Empirical Study of Wife/Husband Decision Making," *Journal of Consumer Research*, 16 (June), 87-97.

Molm, Linda D. (1997), *Coercive Power in Social Exchange*, Cambridge University Press.

Morgan, M.P. (1977), *Deterrence: A Conceptual Analysis*, Beverly Hills, CA: Sage.

Munsinger, G. M., J. E. Weber, and R. W. Hansen (1975), "Joint Home Purchasing Decisions by Husbands and Wives," *Journal of Consumer research*, 1(March), 60-66.

Nagel, Jack H. (1975), *The Descriptive Analysis of Power*, Yale University Press.

Nash, J.F. Jr. (1950), "The Bargaining Problem," *Econometrica*, 18, 155-162.

—— (1953), "Two-Person Cooperative Games," *Econometrica*, 21, 128-140.

Nelson, M.C. (1988), "The Resolution of Conflict in Joint Purchase Decision by Husbands and Wives: A Review and Empirical Test," in *Advances in Consumer Research*, Vol. 15, 436-441.

Nock, S. (1995), "Commitment and Dependency in Marriage," *Journal of Marriage and the Family*, 57, 503-514.

Nullally, J. (1967), *Psychometric Theory*, New York: McGraw-Hill.

Oakley, A. (1985), *The Sociology of Housework*, New York: Blackwell.

Olson, David H. (1977), "Insiders' and Outsiders' Views of Relationships: Research Strategies," in *Close Relationships*, eds. G. Levinger and H. L. Raush, University of Massachusetts Press.

—— and R.E. Cromwell (1975), "Methodological Issues in Family Power," in *Power in Family*, R.E. Cromwell and D.H.Olson ed., NY: John Wiley & Sons.

—— and Rabunsky (1972), "Validity of Four Measures of Family Power," *Journal of Marriage and the family*, 34, 224-234.

—— and R.G. Ryder (1970), "Inventory of Marital Conflicts (IMC): An Experimental Interaction Procedure," *Journal of Marriage and the Family*, 32, 443-448.

Osmond, M. (1978), "Reciprocity: A Dynamic Model and a Method to Study family Power," *Journal of Marriage and the Family*, 40 (February), 49-61.

Park, C. Whan (1982), "Joint Decisions in Home Purchasing: A Muddling-Through Process," *Journal of Consumer Research*, 9 (September), 151-162.

—— (1978), "A Conflict Resolution Choice Model," Journal of Consumer Research, 5 (September), 124-37.

Parson, P.C. (1963), "On the Concept of Influence," *Public Opinion Quarterly*, 27, 37-62.

Peter, J.P., G. A. Churchill, JR. and T. J. Brown (1993), "Caution in the Use of Difference Scores in Consumer Research," *Journal of Consumer Research*, 19 (March), 655-662.

Pfeffer, J. and G. Salancik (1978), *The External Control of Organization: A Resource-Dependence Perspective*, New York: Harper & Row Publications, Inc.

Pollard, William E. and Terence R. Mitchell (1972), "Decision Theory Analysis of Social Power," *Psychological Bulletin*, 78, 433-446.

Pollay, R.W. (1968), "A Model of Family Decision Making," *British Journal of Marketing*, 2, 206-216.

Qualls, William J. (1988), "Toward Understanding the Dynamics of Household Decision Conflict Behavior," in *Advances in Consumer Research*, Vol. 15, M.J. Houston ed., Holbrook, Provo, UT: Association for Consumer Research..

—— (1987), "Household Decision Behavior: The Impact of Husbands' and Wives' Sex Role Orientation," *Journal of Consumer Research*, 14 (September), 264-279.

Raush, H. L., W. A. Barry, R. K. Hertel, and M. A. Swain (1974), *Communication, Coflict, and Marriage*, Washington: Jossey-Bass Publishers.

Raven, B. (1974), "The Comparative Analysis of Power and Influence," in *Perspectives on Social Power*, J.T. Tedeschi ed., Chicago: Aldine.

—— and A.W. Kruglanski (1975), "Conflict and Power," in *The Structure of Conflict*, P. Swingle, ed., New York: Academic Press.

Robinson, J.P., J.G. Raush, and K.B. Head (1974), "Criteria for an Attitude Scale," in *Scaling: A Source Book for Behavioral Scientists*, G.M. Maranell ed., Chicago: Aldine.

Rodman, Hyman (1967), "Marital Power in France, Greece, Yugoslavia, and the United States:A Cross-National Discussion," *Journal of Marriage and the Family*, 29, 320-324.

—— (1972), "Marital Power and the Theory of Resources in Cultural Context," *Journal of Comparative Family Studies*, 3, 50-69.

Roering, Kenneth (1977), "Bargaining in Distribution Channels," *Journal of Business Research*, 5 (March), 15-26.

Rossi, P.E. and G.M. Allenby (1993), "A Bayesian Approach to Estimating Household Parameters," *Journal of Marketing Research*, 30 (May), 171-82.

Rubin, J. and B. Brown (1975), *The Social Psychology of Bargaining and Negotiation*, NY: Academic Press.

Rubin, Z. (1970), "Measurement of Romantic Love," *Journal of Personality and Social Psychology*, 16 (2), 265-73.

Safilios-Rothschild, C. (1969a), "Family Sociology or Wives' Family Sociology? A Cross-Cultural Examination of Decision-Making," *Journal of Marriage and the Family*, 31, 290-301.

——— (1969b), “Patterns of Family Power and Influence,” *Sociological Focus*, 2, 7-19.

——— (1970), “The Study of Family Power Structure: A Review, 1960-1969,” *Journal of Marriage and the family*, 32, 539-552.

——— (1976), “Macro- and Micro-Examination of Family Power and Love: An Exchange Model,” *Journal of Marriage and the Family*, 38, 355-362.

Scanzoni, John (1979), “Sex-Role Influences on Marriaed Women’s Status Attainments,” *Journal of Marriage and the Family*, 41 (November), 793-800.

——— (1977), “Changing Sex Roles and Emerging Directions in Family Decision making,” *Journal of Consumer Research* 4 (December), 185-88.

——— (1972), *Sexual Bargaining: Power Politics in American Marriage*, Englewood Cliffs, NJ: Prentice-Hall.

Schelling, T.C. (1960), *The Strategy of Conflict*, New York: Oxford University Press.

Seymour, D. and G. Lessne (1984), “Spousal Conflict Arousal: Scale Development,” *Journal of Consumer Research*, 11 (December), 810-821.

Sheth, J. N. (1974), “A Theory of Family Buying Decisions,” in *Models of Buyer Behavior: Conceptual, Quantitative, and Empirical*, J.N. Sheth ed., NY: Harper & Row, 17-33.

Simon, H. A. (1953), “Notes on the Observation and Measurement of Political Power,” *Journal of Politics*, 15, 500-516.

Singleman P. (1972), “Exchange as Symbolic Interaction,” *American Sociological Review*, 37, 414-24.

Sirgy, M. Joseph and C. Su (forthcoming), “Destination Image, Self-Congruity, and Travel Behavior: Toward An Integrative Model,” *Journal of Travel Research*.

Smith, W. and W. Leginski (1970), “Magnitude and Provision of Punitive Power in Bargaining Strategy,” *Journal of Experimental Social Psychology*, 6 (January), 57-76.

Spekman, R. E. (1988), “Strategic Supplier Selection: Understanding Long-Term Buyer Relationships,” *Business Horizons*, (July-August), 75-81.

Spiro, Rosann L. (1983), “Persuasion in Family Decision-Making,” *Journal of Consumer Research*, 9 (March), 394-402.

Spitze, G. (1988), "Women's Employment and Family Relations: A Review," *Journal of Marriage and the Family*, 50, 595-618.

Sprey, Jetse (1969), "The Family as a System in Conflict," *Journal of marriage and the Family*, 31, 699-706.

—— (1971), "On the Management of Conflict in Families," *Journal of Marriage and the Family*, November, 722-731.

—— (1972), "Family Power Structure: A Critical Comment," *Journal of Marriage and the Family*, 33, 722-733.

—— (1975), "Family Power and Process: Toward a Conceptual Integration," in *Power in Family*, eds. Cromwell, Ronald E. and David H. Olson, New York: Halsted Press.

Steckel, J. H. and J. O'Shaughnessey (1989), "Toward a New Way to Measure Power: Applying Conjoint Analysis to Group Decisions," *Marketing Letters*, 1 (June), 37-46.

Stern, Louis (1969), *Distribution Channels: Behavioral Dimensions*, Boston: Houghton-Mifflin Company.

Syewart, M. B. and K. F. Wallis (1981), *Introductory Econometrics*, Oxford: Basil Blackwell

Straus, Murray. A. (1979), "Measuring Intrafamily Conflict and Violence: The Conflict Tactics (CT) Scales," *Journal of Marriage and the Family*, February, 75-88.

Strodtbeck, F. L. (1951), "Husband-Wife Interaction over Revealed Differences," *American Sociological Review*, 16, 468-473.

Su, Chenting (1999), "Intervening Forces in Measuring Family Power: A Neglected Aspect of Validation Research on Family Power," in *Marketing Theories and Applications*, Vol. 10, Anil Menon and Arun Sharma, (Eds.). Chicago: American Marketing Association.

Szinovacz, Maximiliane E. (1978), "Another Look at Normative Resource Theory: Contribution from Austrian Data-A Research Note," *Journal of Marriage and the Family*, May, 413-421.

—— (1981), "Relationship among Marital Power measures: A Critical Review and an Empirical Test," *Journal of Comparative Family Studies*, 31, 151-169.

—— (1987), "Family Power," in *Handbook of Marriage and the Family*, M.B. Sussman and S. K. Steinmetz, ed., New York: Plenum, 651-94.

Tedeschi, J. T. and R. B. Felson (1994), *Violence, Aggression, and Coercive Actions*, Washington, D.C., American Psychological Association.

—— and S. Lindskold (1976), *Social Psychology: Interdependence, Interaction, and Influence*, New York: Wiley.

——, T. V. Bonoma, and B. R. Schlenker (1972), "Influence, Decision, and Compliance," in *The Social Influence Process*, J. T. Tedeschi, ed., Chicago: Aldine.

——,B. R. Schlenker, and T. V. Bonoma (1973), *Conflict, Power, and Games*, Chicago: Aldine.

——, G. G. Gaes, and A. N. Rivera (1977), "Aggression and Use of Coercive Power," *Journal of Social Issues*, 33(1), 101-25.

——, R. B. Smith III, and R. C. Brown, Jr. (1974), "A Reinterpretation of Research on Aggression," *Psychological Bulletin*, 89, 540-563.

Thibaut, J. W. and H. H. Kelley (1959), *The Social Psychology of Groups*, NY: Wiley.

Thomas, K. (1978), "Introduction to Special Section on Conflict and the Collaborative Ethic," *California Management Review* 21 (Winter), 56-60.

—— (1976), "Conflict and Conflict Management," in *Handbook of Industrial and Organizational Psychology*, M. D. Dunnette (eds.), pp.889-935. Chicago: Rand-McNally.

Turk, J. L. (1975), "Uses and Abuses of Family Power," in *Power in Families*, R. E. Cromwell and D. H. Olson ed., New York: John Wiley & Sons.

Tversky, A. and D. Kahneman (1991), "Loss Aversion in Riskless Choice: A Reference-Dependence Model," *Quarterly Journal of Economics*, 106, 1039-61.

Tzeng, Oliver C. S. (1993), *Measurement of Love and Intimate Relations*, Westport, CT: Praeger.

Walker, O. C. Jr. (1972), The Effects of Learning on Bargaining Behavior," in *1971 Combined Proceedings*, F. C. Allvine ed., Chicago: American Marketing, 194-99.

Waller, W. and R. Hill (1951), *The Family*, NY: Dryden Press.

Walster, e. and G.W. Walster (1978), *Equity: Theory and research*, Boston: Allyn & Bacon.

Weber, M. (1947), *The Theory of Social and Economic Organization*, New York: Free Press.

Webster, C. (1997), "The Meaning and Measurement of Marital Power: A Review,"in *Advance of Consumer Research*. Vol. 25, J.W. Alba and J.W. Hutchinson, ed., Denver: Association of Consumer Research.

Weick, K. E. (1971), Group Processes, Family Process, and Problem Solving," in *Family Problem Solving: A Symposium on Theoretical Methodological, and Substantive Concerns*, Aldous et al. Ed., Ill: Dryden Press.

Wells, W., J. Burnett, and S. Moriarty (1995), *Advertising: Principles and Practice*, New Jersey: Prentice Hall.

Wilinson, I. F. (1981), "Power, Conflict, and Satisfaction in Distribution Channels--An Empirical Study," *International Journal of Physical Distribution and Material Management*, 11(7), 20-30.

—— and D. Kipnis (1978), "Interfirm Use of Power," *Journal of Applied Psychology*, 63(June), 315-20.

Wolfe, Donald M (1959), "Power and Authority in the Family," in *Studies in Social Power*, eds. D. Cartwright, University of Michigan Press, 99-117.

Yukl, G. A. (1981), *Leadership in Organizations*, Englewood Cliffs, NJ: Prentice-Hall.

—— and C.M. Falbe (1991), "Importance of Different Power Sources in Downward and Lateral Relations," *Journal of Applied Psychology*, 76(3), 416-23.

—— and J.B. Tracey (1992), "Consequences of Influence Tactics Used with Subordinates, Peers, and the Boss," *Journal of Applied Psychology*, 77(4), 525-35.

Appendix A: Questionnaires

Questionnaire for Wife: Part A

Welcome to our study!

The purpose of this study is to understand how families reach decisions and your participation will contribute to filling this gap in consumer decision literature.

This study consists of three questionnaires: one for you, one for your husband, and one for you and your husband together (namely, the **Family Choice Questionnaire**). In your questionnaire, you will be first asked to answer questions regarding **three family decisions**:

(1) deciding a weekend vacation
(2) deciding an elegant family dinner
(3) deciding a family music event

Each decision includes **three alternatives**. For each decision, please **rate** these three alternatives in terms of their attractiveness purely based on your preferences, expertise, and experiences **without discussing them with your husband and/or children**. Your husband will do the separate ratings on his questionnaire in the meantime. **If possible, please do it in a separate room.**

After both of you complete rating the alternatives for each of the three decisions, please **get together** to discuss the alternatives for each decision, using the **Family Choice Questionnaire.** Then, based on the discussion, please **jointly** select **the best alternative** for each decision and record the selected alternative on the **Family Choice Questionnaire**.

After the **Family Choice Questionnaire,** please continue on **Part B** of your questionnaire and we will ask you questions regarding the decision processes. We will then ask you for some demographic information. More detailed instructions will be provided before each section of this questionnaire.

We guarantee that the information you provide will be kept strictly confidential. In an effort to appreciate your time and effort, one or more lotteries will be drawn for each of the three decision scenarios. Specifically, there will be a prima lottery--a two-night-and-three-day weekend vacation (**$500**), three elegant family dinner lotteries (**$100** each), and two family music event lotteries (**$100** each). You and your husband together thus will have **six** chances to win these lotteries for your family. That is, the winning of one lottery does not exclude your chances to win the other five lotteries. We expect no more than **100** couples to participate in the study.

Your frank and honest answers to all the questions will be highly appreciated!

Section I

In this section you will be presented with **three family decision scenarios** as mentioned above. For each scenario we will present to you descriptions of **three alternatives**. These scenarios represent the alternatives from which you will choose if you win the lottery. For example, if you win the vacation lottery, the three vacation alternatives that you can choose to visit are Washington DC, Virginia Beach, and the Blue Ridge Parkway. The same is true for the elegant dining and the music event.

Now, assume that you are the winner of a lottery. For each such scenario, please indicate your **preference** for each of the three alternatives on the following scale of 1 to 100.

Extremely Unappealing — **Neutral** — **Extremely Appealing**

|----------|----------|----------|----------|

1 **50** **100**

While evaluating the alternatives, remember that an alternative that is **more** appealing should be given a **higher** rating than those that are less appealing. For example, an alternative that is very appealing should be given a high number of points (e.g., **90 to 100**); similarly, an alternative that is very unappealing should be given a low number of points (e.g., **10 points or less**).

Scenario One: Planning a Weekend Vacation

Suppose you win the lottery for a weekend vacation and you will choose where to visit. The following are three vacation alternatives that comprise **four** major characteristics: destination, accommodation, things to do, and types of food. Please indicate your preferences for these alternatives on a scale of 1 to 100, **without consulting your husband**.

	Destination	**Accommodation**	**Things to Do**	**Types of Food**
Alternative 1	Washington DC	Marriott Hotel	Visiting historic sites, galleries, museums and shopping	Seafood, steaks, and big variety of ethnic food

On a scale of 1-100, how appealing would you rate this vacation alternative? _____

Alternative 2	Virginia Beach	Raddison Hotel	Swimming, golfing, fishing, and shopping	Seafood, some ethnic, and big variety of fast food

On a scale of 1-100, how appealing would you rate this vacation alternative? _____

Alternative 3	Blue Ridge Parkway	Peaks of Otter Lodge	Hiking, birding, touring of winery, and wine tasting	Limited steak and seafood, some pasta, and a variety of home cooking

On a scale of 1-100, how appealing would you rate this vacation alternative? _____

Which alternative do you prefer? _____

Briefly explain how you arrived at this choice:

Scenario Two: an Elegant Family Dinner

Suppose you also win the lottery for an elegant family dinner and you will choose where to eat out.
The following are three eat-out alternatives that comprise **four** major characteristics: type of food, restaurant, price range, and atmosphere. Please indicate your preferences for these alternatives on a scale of 1 to 100, **without consulting your husband.**

Type of Food	Restaurant	Price Range	Atmosphere
Alternative 1			
Italian Food	Zeppoli's	$6.95-$12.95/Person	Plain atmosphere, no music, nice waiters and quick services

On a scale of 1-100, how appealing would you rate this elegant dinner alternative? _____

Alternative 2			
Japanese Food	Kabuki	$11.95-$24.95/Person	Comfortable, fun and entertaining, ethnic décor and music, nice but slow waiters

On a scale of 1-100, how appealing would you rate this elegant dinner alternative? _____

Alternative 3			
American Food	Anchy's	$7.95-$18.95/Person	Cozy and relaxing, bar and music, fast but impersonal waiters

On a scale of 1-100, how appealing would you rate this elegant dinner alternative? _____

Which alternative do you prefer? _____

Briefly explain how you arrived at this choice:

(Please continue on next page ☛)

Scenario Three: A Music Event

Finally, suppose you also win the music event. The following are three entertainment alternatives that comprise **four** major characteristics. Please indicate your preferences for these alternatives on a scale of 1 to 100, **without consulting your husband.**

Type of Music Event	**Location**	**Setting**	**Comment**
Alternative 1			
Afternoon Jazz concert	Chateau Morrisette	Outdoors on a Grassy knoll at The winery	Can pack your own lunch and sample the wine— Including a wine tasting

On a scale of 1-100, how appealing would you rate this music event alternative? _____

Alternative 2			
Evening of Classical Music	Burruss Hall	Large Auditorium	Can dine before concert And go out for coffee or Cocktails after

On a scale of 1-100, how appealing would you rate this music event alternative? _____

Alternative 3			
Thursday night Jazz	Maxwell's Restaurant	Night club	Can dine before Jazz and Have cocktails during

On a scale of 1-100, how appealing would you rate this music event alternative? _____

Which alternative do you prefer? _____

Briefly explain how you arrived at this choice:

Attention: after you finish rating the alternatives for each of the **three** family decisions, please pause on this questionnaire. Then, please go to the enclosed **Family Choice questionnaire** (the pink one) which you are now supposed to complete **together with** your husband. After finishing the family choice questionnaire, you will be asked to *continue on* **Part B** of this questionnaire and complete the rest of it. Thank you!

(Pause on this questionnaire)

Questionnaire for Wife: Part B

Section II

Now, please continue on this questionnaire.

In this section, please **recall how** you have **influenced** your husband **toward your preferred alternative** in each of the three family decisions. There are 12 different **influence strategies** you might have used in the family decision processes. On a scale ranging from **1 = strongly disagree to 7 = strongly agree,** please circle the number indicating how strongly you agree/disagree with having used each of the 12 influence strategies in each of the three family decisions. The **more strongly** you agree with the statement, the **higher** number you should circle:

Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

Family Decision One: Planning a Weekend Vacation

Please indicate how strongly you agree/disagree with having used each of the following strategies in getting your way during the discussion with your **husband** about where to visit.

	Strongly Disagree						Strongly Agree
1. I kept repeating or arguing my point of view.	1	2	3	4	5	6	7
2. I voiced my point of view loudly.	1	2	3	4	5	6	7
3. I told my husband I have more experience with such matter.	1	2	3	4	5	6	7
4. I mentioned the children's needs to back up my point of view.	1	2	3	4	5	6	7
5. I made my husband believe he was doing me a favor.	1	2	3	4	5	6	7
6. I showed how much his stand hurt me by looking unhappy.	1	2	3	4	5	6	7
7. I got angry and demanded that he give in.	1	2	3	4	5	6	7
8. I reasoned with him why he should agree to my decision.	1	2	3	4	5	6	7
9. I told him it is the wife's task to make such a decision.	1	2	3	4	5	6	7
10. I tried to negotiate something agreeable to both of us.	1	2	3	4	5	6	7
11. I just stated my needs. I told him what I wanted.	1	2	3	4	5	6	7
12. I clamed up and refused to discuss the issue.	1	2	3	4	5	6	7

(Please continue on next page ☛)

Family Decision Two: An Elegant Family Dinner

Please indicate how strongly you agree/disagree with having used each of the following strategies in getting your way during the discussion with your **husband** about where to eat out.

	Strongly Disagree						Strongly Agree
1. I made my husband believe he was doing me a favor.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
2. I showed how much his stand hurt me by looking unhappy.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
3. I reasoned with him why he should agree to my decision.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
4. I told him it is the wife's task to make such a decision.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
5. I clamed up and refused to discuss the issue.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
6. I told my husband I have more experience with such matter.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
7. I got angry and demanded that he give in.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
8. I voiced my point of view loudly.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
9. I kept repeating or arguing my point of view.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
10. I mentioned the children's needs to back up my point of view.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
11. I tried to negotiate something agreeable to both of us.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
12. I just stated my needs. I told him what I wanted.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

Family Decision Three: A Music Event

Please indicate how strongly you agree/disagree with having used each of the following strategies in getting your way during the discussion with your **husband** about where to entertain.

	Strongly Disagree						Strongly Agree
1. I told my husband I have more experience with such matter.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
2. I made my husband believe he was doing me a favor.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
3. I kept repeating or arguing my point of view.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
4. I showed how much his stand hurt me by looking unhappy.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
5. I voiced my point of view loudly.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
6. I told him it is the wife's task to make such a decision.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
7. I just stated my needs. I told him what I wanted.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
8. I clamed up and refused to discuss the issue.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
9. I mentioned the children's needs to back up my point of view.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
10. I got angry and demanded that he give in.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
11. I reasoned with him why he should agree to my decision.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
12. I tried to negotiate something agreeable to both of us.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

Section III

For the **joint discussions** just finished, please allocation **100 points** between you and your husband with regard to the **relative influence** each one of you had in each of the **three** family decision scenarios. For example, if you think you had more influence in a specific decision scenario than your husband, then you should allocate **more than 50 points** to yourself and **less than 50 points** to your husband, and vice versa. Also, please indicate how satisfied you are toward each of the three decision processes and the decision outcomes on a scale of 1 to 7.

Scenario One: A Weekend Vacation

Wife:_____Points	Husband:_____Points	Total: **100 Points**

How satisfied are you toward the decision outcome?

Very Dissatisfied						**Very Satisfied**
1	**2**	**3**	**4**	**5**	**6**	**7**

How satisfied you are toward the decision process?

Very Dissatisfied						**Very Satisfied**
1	**2**	**3**	**4**	**5**	**6**	**7**

Scenario Two: An Elegant Family Dinner

Wife:_____Points	Husband:_____Points	Total: **100 Points**

How satisfied are you toward the decision outcome?

Very Dissatisfied						**Very Satisfied**
1	**2**	**3**	**4**	**5**	**6**	**7**

How satisfied you are toward the decision process?

Very Dissatisfied						**Very Satisfied**
1	**2**	**3**	**4**	**5**	**6**	**7**

Scenario Three: A Music Event

Wife:_____Points	Husband:_____Points	Total: **100 Points**

How satisfied are you toward the decision outcome?

Very Dissatisfied						**Very Satisfied**
1	**2**	**3**	**4**	**5**	**6**	**7**

How satisfied you are toward the decision process?

Very Dissatisfied						**Very Satisfied**
1	**2**	**3**	**4**	**5**	**6**	**7**

Section IV

In this section, you are asked to answer the following questions regarding your attitudes toward your husband. Each question is rated on a 7-point scale (**1 = strongly disagree, 7 = strongly agree)** without a neutral point. Please circle the number indicating how strongly you agree/disagree with the following statements. The **more strongly** you agree with a statement, the **higher** number you should circle.

	Strongly Disagree |----------						**Strongly Agree** ----|
1. I feel that I can confide in my husband about virtually everything.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
2. I would do almost anything for my husband.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
3. If I could never be with my husband, I would feel miserable.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
4. If I were lonely, my first thought would be to seek my husband out.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
5. One of my primary concerns is my husband's welfare.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
6. I would forgive my husband for practically anything.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
7. I feel responsible for my husband's well being.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
8. I would greatly enjoy being confided in by my husband.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
9. It would be hard for me to get along without my husband.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

Section V

Please also answer the following questions regarding your and your spouse's participation in making the above family decisions. Each question is rated on a 7-point scale (**1 = strongly disagree, 7 = strongly agree)** without a neutral point. The **more strongly** you agree with the situation, the **higher** number you should circle.

1. These decisions are practical despite hypothetical, and I behaved as I usually do in real family decision making.

Strongly Disagree						**Strongly Agree**
1	**2**	**3**	**4**	**5**	**6**	**7**

2. These decisions are practical despite hypothetical, and my husband behaved as he usually does in real family decision making.

Strongly Disagree						**Strongly Agree**
1	**2**	**3**	**4**	**5**	**6**	**7**

3. When I filled out the **Part A** of this questionnaire, I did not discuss with my husband and formed my ideas independently

Strongly Disagree						**Strongly Agree**
1	**2**	**3**	**4**	**5**	**6**	**7**

Section VI

The following questions will be used for classification purpose only.

1. How long have you been married? _____years
2. How many children (under age of 18) do you have? _____
3. What is (was) your most recent occupation? _____
4. What is your highest degree? _____
5. On the following scale of 0% to 100%, indicate what is the percentage of housework your husband does everyday. What percentage do you do everyday?

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|

(a) Cleaning house: Your husband's percentage_____; Your percentage_____
(b) Cooking Your husband's percentage_____; Your percentage_____
(c) Washing up Your husband's percentage_____; Your percentage_____
(d) Washing Your husband's percentage_____; Your percentage_____
(e) Shopping Your husband's percentage_____; Your percentage_____
(f) Caring kids Your husband's percentage_____; Your percentage_____

9. What is your **husband's** current annual income (please check one):
   (a) under $30,000 ( )
   (b) $30,000 to under $39,999 ( )
   (c) $40,000 to under $49,999 ( )
   (d) $50,000 to under $59,999 ( )
   (e) $60,000 to under $69,999 ( )
   (f) $70,000 to under $79,999 ( )
   (g) $80,000 to under $89,999 ( )
   (h) $90,000 to under $99,999 ( )
   (i) $100,000 and over ( )
10. What is your current annual income (please check one):
   (j) under $30,000 ( )
   (k) $30,000 to under $39,999 ( )
   (l) $40,000 to under $49,999 ( )
   (m) $50,000 to under $59,999 ( )
   (n) $60,000 to under $69,999 ( )
   (o) $70,000 to under $79,999 ( )
   (p) $80,000 to under $89,999 ( )
   (q) $90,000 to under $99,999 ( )
   (r) $100,000 and over ( )

Thank you very much for your cooperation! Please mail all the three finished questionnaires back to us, using the enclosed pre-stamped manila envelope. The lotteries will be drawn shortly.

Questionnaire for Husband: Part A

Welcome to our study!

The purpose of this study is to understand how families reach decisions and your participation will contribute to filling this gap in consumer decision literature.

This study consists of three questionnaires: one for you, one for your wife, and one for you and your wife together (namely, the **Family Choice Questionnaire**). In your questionnaire, you will be first asked to answer questions regarding **three family decisions**:

(1) deciding a weekend vacation
(2) deciding an elegant family dinner
(3) deciding a family music event

Each decision includes **three alternatives**. For each decision, please **rate** these three alternatives in terms of their attractiveness purely based on your preferences, expertise, and experiences **without discussing them with your wife and/or children**. Your wife will do the separate ratings on his questionnaire in the meantime. **If possible, please do it in a separate room.**

After both of you complete rating the alternatives for each of the three decisions, please **get together** to discuss the alternatives for each decision, using the **Family Choice Questionnaire.** Then, based on the discussion, please **jointly** select **the best alternative** for each decision and record the selected alternative on the **Family Choice Questionnaire**.

After the **Family Choice Questionnaire,** please continue on **Part B** of your questionnaire and we will ask you questions regarding the decision processes. We will then ask you for some demographic information. More detailed instructions will be provided before each section of this questionnaire.

We guarantee that the information you provide will be kept strictly confidential. In an effort to appreciate your time and effort, one or more lotteries will be drawn for each of the three decision scenarios. Specifically, there will be a prima lottery--a two-night-and-three-day weekend vacation (**$500**), three elegant family dinner lotteries (**$100** each), and two family music event lotteries (**$100** each). You and your wife together thus will have **six** chances to win these lotteries for your family. That is, the winning of one lottery does not exclude your chances to win the other five lotteries. We expect no more than **100** couples to participate in the study.

Your frank and honest answers to all the questions will be highly appreciated!

Section I

In this section you will be presented with **three family decision scenarios** as mentioned above. For each scenario we will present to you descriptions of **three alternatives**. These scenarios represent the alternatives from which you will choose if you win the lottery. For example, if you win the vacation lottery, the three vacation alternatives that you can choose to visit are Washington DC, Virginia Beach, and the Blue Ridge Parkway. The same is true for the elegant dining and the music event.

Now, assume that you are the winner of a lottery. For each such scenario, please indicate your **preference** for each of the three alternatives on the following scale of 1 to 100.

Extremely Unappealing — **Neutral** — **Extremely Appealing**

|----------|----------|----------|----------|

1 **50** **100**

While evaluating the alternatives, remember that an alternative that is **more** appealing should be given a **higher** rating than those that are less appealing. For example, an alternative that is very appealing should be given a high number of points (e.g., **90 to 100**); similarly, an alternative that is very unappealing should be given a low number of points (e.g., **10 points or less**).

Scenario One: Planning a Weekend Vacation

Suppose you win the lottery for a weekend vacation and you will choose where to visit. The following are three vacation alternatives that comprise **four** major characteristics: destination, accommodation, things to do, and types of food. Please indicate your preferences for these alternatives on a scale of 1 to 100, **without consulting your wife**.

Alternative 1

Destination	**Accommodation**	**Things to Do**	**Types of Food**
Washington DC	Marriott Hotel	Visiting historic sites, galleries, museums and shopping	Seafood, steaks, and big variety of ethnic food

On a scale of 1-100, how appealing would you rate this vacation alternative? _____

Alternative 2

Virginia Beach	Raddison Hotel	Swimming, golfing, fishing, and shopping	Seafood, some ethnic, and big variety of fast food

On a scale of 1-100, how appealing would you rate this vacation alternative? _____

Alternative 3

Blue Ridge Parkway	Peaks of Otter Lodge	Hiking, birding, touring of winery, and wine tasting	Limited steak and seafood, some pasta, and a variety of home cooking

On a scale of 1-100, how appealing would you rate this vacation alternative? _____

Which alternative do you prefer? _____

Briefly explain how you arrived at this choice:

Scenario Two: an Elegant Family Dinner

Suppose you also win the lottery for an elegant family dinner and you will choose where to eat out.
The following are three eat-out alternatives that comprise **four** major characteristics: type of food, restaurant, price range, and atmosphere. Please indicate your preferences for these alternatives on a scale of 1 to 100, **without consulting your wife**.

Type of Food	Restaurant	Price Range	Atmosphere
Alternative 1			
Italian Food	Zeppoli's	$6.95-$12.95/Person	Plain atmosphere, no music, nice waiters and quick services

On a scale of 1-100, how appealing would you rate this elegant dinner alternative? _____

Alternative 2			
Japanese Food	Kabuki	$11.95-$24.95/Person	Comfortable, fun and entertaining, ethnic décor and music, nice but slow waiters

On a scale of 1-100, how appealing would you rate this elegant dinner alternative? _____

Alternative 3			
American Food	Anchy's	$7.95-$18.95/Person	Cozy and relaxing, bar and music, fast but impersonal waiters

On a scale of 1-100, how appealing would you rate this elegant dinner alternative? _____

Which alternative do you prefer? _____

Briefly explain how you arrived at this choice:

(Please continue on next page ☛)

Scenario Three: A Music Event

Finally, suppose you also win the music event. The following are three entertainment alternatives that comprise **four** major characteristics. Please indicate your preferences for these alternatives on a scale of 1 to 100, **without consulting your wife.**

Type of Music Event	**Location**	**Setting**	**Comment**
Alternative 1			
Afternoon Jazz concert	Chateau Morrisette	Outdoors on a Grassy knoll at The winery	Can pack your own lunch and sample the wine— Including a wine tasting

On a scale of 1-100, how appealing would you rate this music event alternative? _____

Alternative 2			
Evening of Classical Music	Burruss Hall	Large Auditorium	Can dine before concert And go out for coffee or Cocktails after

On a scale of 1-100, how appealing would you rate this music event alternative? _____

Alternative 3			
Thursday night Jazz	Maxwell's Restaurant	Night club	Can dine before Jazz and Have cocktails during

On a scale of 1-100, how appealing would you rate this music event alternative? _____

Which alternative do you prefer? _____

Briefly explain how you arrived at this choice:

Attention: after you finish rating the alternatives for each of the **three** family decisions, please pause on this questionnaire. Then, please go to the enclosed **Family Choice questionnaire** (the pink one) which you are now supposed to complete **together with** your wife. After finishing the family choice questionnaire, you will be asked to *continue on* **Part B** of this questionnaire and complete the rest of it. Thank you!

(Pause on this questionnaire)

Questionnaire for Husband: Part B

Section II

Now, please continue on this questionnaire.

In this section, please **recall how** you have **influenced** your wife **toward your preferred alternative** in each of the three family decisions. There are 12 different **influence strategies** you might have used in the family decision processes. On a scale ranging from **1 = strongly disagree to 7 = strongly agree,** please circle the number indicating how strongly you agree/disagree with having used each of the 12 influence strategies in each of the three family decisions. The **more strongly** you agree with the statement, the **higher** number you should circle:

Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

Family Decision One: Planning a Weekend Vacation

Please indicate how strongly you agree/disagree with having used each of the following strategies in getting your way during the discussion with your **wife** about where to visit.

	Strongly Disagree						Strongly Agree
1. I kept repeating or arguing my point of view.	1	2	3	4	5	6	7
2. I voiced my point of view loudly.	1	2	3	4	5	6	7
3. I told my wife I have more experience with such matter.	1	2	3	4	5	6	7
4. I mentioned the children's needs to back up my point of view.	1	2	3	4	5	6	7
5. I made my wife believe she was doing me a favor.	1	2	3	4	5	6	7
6. I showed how much her stand hurt me by looking unhappy.	1	2	3	4	5	6	7
7. I got angry and demanded that she give in.	1	2	3	4	5	6	7
8. I reasoned with her why she should agree to my decision.	1	2	3	4	5	6	7
9. I told her it is the husband's task to make such a decision.	1	2	3	4	5	6	7
10. I tried to negotiate something agreeable to both of us.	1	2	3	4	5	6	7
11. I just stated my needs. I told him what I wanted.	1	2	3	4	5	6	7
12. I clamed up and refused to discuss the issue.	1	2	3	4	5	6	7

(Please continue on next page ☛)

Family Decision Two: An Elegant Family Dinner

Please indicate how strongly you agree/disagree with having used each of the following strategies in getting your way during the discussion with your **wife** about where to eat out.

	Strongly Disagree						Strongly Agree
1. I made my wife believe she was doing me a favor.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
2. I showed how much her stand hurt me by looking unhappy.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
3. I reasoned with her why she should agree to my decision.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
4. I told her it is the husband's task to make such a decision.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
5. I clamed up and refused to discuss the issue.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
6. I told my wife I have more experience with such matter.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
7. I got angry and demanded that she give in.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
8. I voiced my point of view loudly.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
9. I kept repeating or arguing my point of view.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
10. I mentioned the children's needs to back up my point of view.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
11. I tried to negotiate something agreeable to both of us.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
12. I just stated my needs. I told her what I wanted.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

Family Decision Three: A Music Event

Please indicate how strongly you agree/disagree with having used each of the following strategies in getting your way during the discussion with your **husband** about where to entertain.

	Strongly Disagree						Strongly Agree
1. I told my wife I have more experience with such matter.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
2. I made my wife believe she was doing me a favor.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
3. I kept repeating or arguing my point of view.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
4. I showed how much her stand hurt me by looking unhappy.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
5. I voiced my point of view loudly.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
6. I told her it is the husband's task to make such a decision.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
7. I just stated my needs. I told her what I wanted.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
8. I clamed up and refused to discuss the issue.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
9. I mentioned the children's needs to back up my point of view.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
10. I got angry and demanded that she give in.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
11. I reasoned with her why she should agree to my decision.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
12. I tried to negotiate something agreeable to both of us.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

Section III

For the **joint discussions** just finished, please allocation **100 points** between you and your wife with regard to the **relative influence** each one of you had in each of the **three** family decision scenarios. For example, if you think you had more influence in a specific decision scenario than your wife, then you should allocate **more than 50 points** to yourself and **less than 50 points** to your wife, and vice versa. Also, please indicate how satisfied you are toward each of the three decision processes and the decision outcomes on a scale of 1 to 7.

Scenario One: A Weekend Vacation

Husband: _____ Points	Wife: _____ Points	Total: **100 Points**

How satisfied are you toward the decision outcome?

Very Dissatisfied						**Very Satisfied**
1	**2**	**3**	**4**	**5**	**6**	**7**

How satisfied you are toward the decision process?

Very Dissatisfied						**Very Satisfied**
1	**2**	**3**	**4**	**5**	**6**	**7**

Scenario Two: An Elegant Family Dinner

Husband: _____ Points	Wife: _____ Points	Total: **100 Points**

How satisfied are you toward the decision outcome?

Very Dissatisfied						**Very Satisfied**
1	**2**	**3**	**4**	**5**	**6**	**7**

How satisfied you are toward the decision process?

Very Dissatisfied						**Very Satisfied**
1	**2**	**3**	**4**	**5**	**6**	**7**

Scenario Three: A Music Event

Husband: _____ Points	Wife: _____ Points	Total: **100 Points**

How satisfied are you toward the decision outcome?

Very Dissatisfied						**Very Satisfied**
1	**2**	**3**	**4**	**5**	**6**	**7**

How satisfied you are toward the decision process?

Very Dissatisfied						**Very Satisfied**
1	**2**	**3**	**4**	**5**	**6**	**7**

Section IV

In this section, you are asked to answer the following questions regarding your attitudes toward your wife. Each question is rated on a 7-point scale (**1 = strongly disagree, 7 = strongly agree)** without a neutral point. Please circle the number indicating how strongly you agree/disagree with the following statements. The **more strongly** you agree with a statement, the **higher** number you should circle.

	Strongly Disagree |----------| Strongly Agree
1. I feel that I can confide in my wife about virtually everything.	**1 2 3 4 5 6 7**
2. I would do almost anything for my wife.	**1 2 3 4 5 6 7**
3. If I could never be with my wife, I would feel miserable.	**1 2 3 4 5 6 7**
4. If I were lonely, my first thought would be to seek my wife out.	**1 2 3 4 5 6 7**
5. One of my primary concerns is my wife's welfare.	**1 2 3 4 5 6 7**
6. I would forgive my wife for practically anything.	**1 2 3 4 5 6 7**
7. I feel responsible for my wife's well being.	**1 2 3 4 5 6 7**
8. I would greatly enjoy being confided in by my wife.	**1 2 3 4 5 6 7**
9. It would be hard for me to get along without my wife.	**1 2 3 4 5 6 7**

Section V

Please also answer the following questions regarding your and your spouse's participation in making the above family decisions. Each question is rated on a 7-point scale (**1 = strongly disagree, 7 = strongly agree)** without a neutral point. The **more strongly** you agree with the situation, the **higher** number you should circle.

1. These decisions are practical despite hypothetical, and I behaved as I usually do in real family decision making.

Strongly Disagree **Strongly Agree**
1 2 3 4 5 6 7

2. These decisions are practical despite hypothetical, and my wife behaved as she usually does in real family decision making.

Strongly Disagree **Strongly Agree**
1 2 3 4 5 6 7

3. When I filled out the **Part A** of this questionnaire, I did not discuss with my husband and formed my ideas independently

Strongly Disagree **Strongly Agree**
1 2 3 4 5 6 7

Section VI

The following questions will be used for classification purpose only.

6. How long have you been married? _____years
7. How many children (under age of 18) do you have? _____
8. What is (was) your most recent occupation? _____
9. What is your highest degree? _____
10. On the following scale of 0% to 100%, indicate what is the percentage of housework your wife does everyday. What percentage do you do everyday?

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|

(a) Cleaning house:	Your wife's percentage_____;	Your percentage_____
(b) Cooking	Your wife's percentage_____;	Your percentage_____
(c) Washing up	Your wife's percentage_____;	Your percentage_____
(d) Washing	Your wife's percentage_____;	Your percentage_____
(e) Shopping	Your wife's percentage_____;	Your percentage_____
(f) Caring kids	Your wife's percentage_____;	Your percentage_____

9. What is your **wife's** current annual income (please check one):

(s) under $30,000	( )
(t) $30,000 to under $39,999	( )
(u) $40,000 to under $49,999	( )
(v) $50,000 to under $59,999	( )
(w) $60,000 to under $69,999	( )
(x) $70,000 to under $79,999	( )
(y) $80,000 to under $89,999	( )
(z) $90,000 to under $99,999	( )
(aa) $100,000 and over	( )

10. What is your current annual income (please check one):

(bb) under $30,000	( )
(cc) $30,000 to under $39,999	( )
(dd) $40,000 to under $49,999	( )
(ee) $50,000 to under $59,999	( )
(ff) $60,000 to under $69,999	( )
(gg) $70,000 to under $79,999	( )
(hh) $80,000 to under $89,999	( )
(ii) $90,000 to under $99,999	( )
(jj) $100,000 and over	( )

Thank you very much for your cooperation! Please mail all the three finished questionnaires back to us, using the enclosed pre-stamped manila envelope. The lotteries will be drawn shortly.

Family Choice Questionnaire

Part I

Suppose that you and your spouse win the lottery for the two-night and three-day weekend vacation. If you are the lucky ones, which of the vacation packages will you chose? **Please review the alternative vacation packages again** and make a **joint decision** about where you two want to visit on your weekend vacation. This is the vacation you will receive if you win the lottery. The cost of each vacation plan is the same. Each alternative has a retail value of $500.00. Please discuss and agree on a rating for each of the three alternatives. After both of you agree on the rating for each of the three alternatives, please record them in the spaces provided below. Then indicate which destination you have chosen by circling the appropriate number below.

Scenario One: Planning a Weekend Vacation

Please **jointly** rate the following three vacation alternatives and decide on **the one you will choose if you win the lottery.**

Destination	**Accommodation**	**Things to Do**	**Types of Food**
Alternative 1			
Washington DC	Marriott Hotel	Visiting historic sites, galleries, museums and shopping	Seafood, steaks, and big variety of ethnic food

On a scale of 1-100, how appealing would you rate this vacation alternative? _____

Alternative 2			
Virginia Beach	Raddison Hotel	Swimming, golfing, fishing, and shopping	Seafood, some ethnic, and big variety of fast food

On a scale of 1-100, how appealing would you rate this vacation alternative? _____

Alternative 3			
Blue Ridge Parkway	Peaks of Otter Lodge	Hiking, birding, touring of winery, and wine tasting	Limited steak and seafood, some pasta, and a variety of home cooking

On a scale of 1-100, how appealing would you rate this vacation alternative? _____

Please circle the number of the vacation alternative you will choose if you win the lottery**:**

1 2 3

(Please go to next page ☛)

Part II

If you are the lucky ones, which of the family dinners will you choose? **Please review the alternative elegant family dinners again** and make a **joint decision** about where you want to dine. This is the elegant family dinner you will receive if you win the lottery. The total cost of each dinner plan is the same. Each alternative has a retail value of $100.00. Please discuss and agree on a rating for each of the three alternatives. After both of you agree on the rating for each of the three alternatives, please record them in the spaces provided below. Then indicate which destination you have chosen by circling the appropriate number below.

Scenario Two: Elegant Family Dinner

Please **jointly** rate the following three elegant dinning alternatives and decide on **the one you will choose if you win the lottery.**

Type of Food	Restaurant	Price Range	Atmosphere
Alternative 1			
Italian Food	Zeppoli's	$6.95-$12.95/Person	Plain atmosphere, no music, nice waiters and quick services

On a scale of 1-100, how appealing would you rate this elegant dinner alternative? _____

Alternative 2			
Japanese Food	Kabuki	$11.95-$24.95/Person	Comfortable, fun and entertaining, ethnic décor and music, nice but slow waiters

On a scale of 1-100, how appealing would you rate this elegant dinner alternative? _____

Alternative 3			
American Food	Anchy's	$7.95-$18.95/Person	Cozy and relaxing, bar and music, fast but impersonal waiters

On a scale of 1-100, how appealing would you rate this elegant dinner alternative? _____

Please circle the number of the elegant dinning alternative you will choose if you win the lottery:

1 2 3

(PLEASE GO TO NEXT PAGE ☛)

Part III

Finally, if you are lucky enough to win the music event, which of the entertainment alternatives do you want? **Please review the alternative music events again** and make a **joint decision** about what you want to do. This is the music event you will receive if you win the lottery. The total cost of each music event is the same. Each alternative has a retail value of $100.00. Please discuss and agree on a rating for each of the three alternatives. After both of you agree on the rating for each of the three alternatives, please record them in the spaces provided below. Then indicate which music event you have chosen by circling the appropriate number below.

Scenario Three: A Music Event

Please **jointly** rate the following three elegant dinning alternatives and decide on **the one you will choose if you win the lottery.**

Type of Music Event	Location	Setting	Comment
Alternative 1			
Afternoon Jazz concert	Chateau Morrisette	Outdoors on a grassy knoll at the winery	Can pack your own lunch and sample the wine—including a wine tasting

On a scale of 1-100, how appealing would you rate this music event alternative? _____

Alternative 2			
Evening of Classical Music	Burruss Hall	Large Auditorium	Can dine before concert and go out for coffee or cocktails after

On a scale of 1-100, how appealing would you rate this music event alternative? _____

Alternative 3			
Thursday night Jazz	Maxwell's Restaurant	Night club	Can dine before Jazz and have cocktails during

On a scale of 1-100, how appealing would you rate this music event alternative? _____

Please circle the number of the music event alternative you will choose if you win the lottery:

1 2 3

PLEASE PUT THESE THREE PAGES IN THE STAMPED MANILA ENVELOPE AND GO BACK TO YOUR ROOM TO CONTINUE ON PART B OF YOUR QUESTIONNAIRE. THANK YOU!

Appendix B: Abbreviation of Variables

X11: Wife's power in decision scenario I
X12: Wife's power in decision scenario II
X13: Wife's power in decision scenario III
X21: Wife's preference in decision scenario I
X22: Wife's preference in decision scenario II
X23: Wife's preference in decision scenario III
X31: Wife's love in decision scenario I
X32: Wife's love in decision scenario II
X33: Wife's love in decision scenario III
X41: Husband's power in decision scenario I
X42: Husband's power in decision scenario II
X43: Husband's power in decision scenario III
X51: Husband's preference in decision scenario I
X52: Husband's preference in decision scenario II
X53: Husband's preference in decision scenario III
X61: Husband's love in decision scenario I
X62: Husband's love in decision scenario II
X63: Husband's love in decision scenario III
X1AJUST1: X12-ρ_wX11
X1AJUST2: X13-ρ_wX12
X2AJUST1: X22-ρ_wX21
X2AJUST2: X23-ρ_wX22
X3AJUST1: X32-ρ_wX31
X3AJUST2: X33-ρ_wX32
X4AJUST1: X42-ρ_hX41
X4AJUST2: X43-ρ_hX42
X5AJUST1: X52-ρ_hX51
X5AJUST2: X53-ρ_hX52
X6AJUST1: X62-ρ_hX61
X6AJUST2: X63-ρ_hX62
WPOWER: Wife's power
HPOWER: Husband's power
WPOWERI: Wife's income power
WPOWERH: Wife's housework power
HPOWERI: Husband's income power
HPOWERH: Husband's housework power
WPOWERI1: Wife's income power in decision scenario I
WPOWERI2: Wife's income power in decision scenario II
WPOWERI3: Wife's income power in decision scenario III
WPOWERH1: Wife's housework power in decision scenario I
WPOWERH2: Wife's housework power in decision scenario II
WPOWERH3: Wife's housework power in decision scenario III

HPOWERI1: Husband's income power in decision scenario I
HPOWERI2: Husband's income power in decision scenario II
HPOWERI3: Husband's income power in decision scenario III
WPIAJUST1: WPOWERI2-ρ_wWPOWERI1
WPIAJUST2: WPOWERI3-ρ_wWPOWERI2
WPHAJUST1: WPOWERH2-ρ_wWPOWERH1
WPHAJUST2: WPOWERH3-ρ_wWPOWERH2
HPIAJUST1: HPOWERI2-ρ_hHPOWERI1
HPIAJUST2: HPOWERI3-ρ_hHPOWERI2
HPHAJUST1: HPOWERH2-ρ_hHPOWERH1
HPHAJUST2: HPOWERH3-ρ_hHPOWERH2
YW1: Wife's coercion propensity in decision scenario I
YW2: Wife's coercion propensity in decision scenario II
YW3: Wife's coercion propensity in decision scenario III
YH1: Husband's coercion propensity in decision scenario I
YH2: Husband's coercion propensity in decision scenario II
YH3: Husband's coercion propensity in decision scenario III
YWAJUST1: YW2-ρ_wYW1
YWAJUST2: YW3-ρ_wYW2
YHAJUST1: YH2-ρ_hYH1
YHAJUST2: YH3-ρ_hYH2
YWHAT1: Predicted value of YW1
YWSTAR1: Predicted value of YWAJUST1
YWSTAR2: Predicted value of YWAJUST2
YHHAT1: Predicted value of YH1
YHSTAR1: Predicted value of YHAJUST1
YHSTAR2: Predicted value of YHAJUST2
EW1: Predicted value of error term in decision scenario I for wife sample
EW2: Predicted value of error term in decision scenario II for wife sample
EW3: Predicted value of error term in decision scenario III for wife sample
EH1: Predicted value of error term in decision scenario I for husband sample
EH2: Predicted value of error term in decision scenario II for husband sample
EH3: Predicted value of error term in decision scenario III for husband sample
WWIN1: Wife's win in decision scenario I
WWIN2: Wife's win in decision scenario II
WWIN3: Wife's win in decision scenario III
WSRI1: Wife's self-reported relative influence in decision scenario I
WSRI2: Wife's self-reported relative influence in decision scenario II
WSRI3: Wife's self-reported relative influence in decision scenario III
HSRI1: Husband's self-reported relative influence in decision scenario I
HSRI2: Husband's self-reported relative influence in decision scenario II
HSRI3: Husband's self-reported relative influence in decision scenario III

WSDO1: Wife's satisfaction with the decision outcome in decision scenario I
WSDO2: Wife's satisfaction with the decision outcome in decision scenario II
WSDO3: Wife's satisfaction with the decision outcome in decision scenario III
HSDO1: Husband's satisfaction with the decision outcome in decision scenario I
HSDO2: Husband's satisfaction with the decision outcome in decision scenario II
HSDO3: Husband's satisfaction with the decision outcome in decision scenario III
WSDP1: Wife's satisfaction with the decision process in decision scenario I
WSDP2: Wife's satisfaction with the decision process in decision scenario II
WSDP3: Wife's satisfaction with the decision process in decision scenario III
HSDP1: Husband's satisfaction with the decision process in decision scenario I
HSDP2: Husband's satisfaction with the decision process in decision scenario II
HSDP3: Husband's satisfaction with the decision process in decision scenario III

Appendix C: Statistical Results

Table S1
Regression Results: Wives' Decision behavior in the First Decision Scenario
(Endogenous Variable: YW1)*

1. Model Summary

Multiple R	.779
R Square	. 607
Adjusted R Square	. 588
Standard Error	1.931

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	4	494.70		123.68
Residual	86	320.70		3.73
		F = 33.17	Sig. Of F	.000

3. Coefficients

Variables	Beta	t-values	Sig.
X11	-.066	-.973	.333
X21	.177	3.207	.002
X31	-.399	-5.505	.000
YHHAT1	-.390	-1.428	.157

*N=91

Table S2
Regression Results: Husbands' Decision behavior in the First Decision Scenario (Endogenous Variable: YH1)*

1. Model Summary

Multiple R	.668
R Square	. 446
Adjusted R Square	. 421
Standard Error	2.150

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	4	320.49		80.12
Residual	86	397.58		4.62
		F = 17.33	Sig. Of F	.000

3. Coefficients

Variables	Beta	t-values	Sig.
X41	-.037	-.446	.657
X51	.137	2.389	.019
X61	-.326	-3.808	.000
YWHAT1	-.356	-.910	.365

*N=91

Table S3
Regression Results: Wives' Decision behavior in the First Decision Scenario**
(Endogenous Variable: YW1)*

1. Model Summary

Multiple R	.780
R Square	. 608
Adjusted R Square	. 585
Standard Error	1.939

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	5	495.67		99.13
Residual	85	319.74		3.73
		F = 26.35	Sig. Of F	.000

3. Coefficients

Variables	Beta	t-values	Sig.
WPOWERI	.057	.826	.411
WPOWERH	-.03	-.432	.667
X21	.173	3.232	.002
X31	-.399	-5.385	.000
YHHAT11	-.390	-1.428	.157

*N=91
**X11 is decomposed into WPOWERI and WPOWERH

Table S4
Regression Results: Husbands' Decision behavior in the First Decision Scenario**
(Endogenous Variable: YH1)*

1. Model Summary

Multiple R	.678
R Square	. 459
Adjusted R Square	. 427
Standard Error	2.138

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	5	329.61		65.92
Residual	85	388.45		4.57
		F = 14.43	Sig. Of F	.000

3. Coefficients

Variables	Beta	t-values	Sig.
HPOWERI	.046	.556	.579
HPOWERH	-.106	-1.261	.211
X51	.149	2.420	.018
X61	-.291	-3.283	.001
YWHAT11	-.359	-.994	.323

*N=91
**X41 is decomposed into HPOWERI and HPOWERH

Table S5
Regression Results: Estimating ρ_w for the Second decision Scenario
(Dependent Variable EW2)*

1. Model Summary

Multiple R	.165
R Square	. 027
Adjusted R Square	. 016
Standard Error	6.604

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	1	208.44		208.44
Residual	89	3671.28		43.61
		F = 4.78	Sig. Of F	.0377

3. Coefficients

Variables	Beta	t-values	Sig.
EW1	-.165	-2.186	.0377

*N=91

Table S6
Regression Results: Estimating ρ_h for the Second decision Scenario
(Dependent Variable EH2)*

1. Model Summary

Multiple R	.103
R Square	. 011
Adjusted R Square	. 000
Standard Error	4.745

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	1	121.54		121.54
Residual	89	2004.19		22.52
		F = 5.40	Sig. Of F	.0241

3. Coefficients

Variables	Beta	t-values	Sig.
EH1	-.103	-2.324	.0241

*N=91

Table S7
Regression Results: Estimating ρ_w for the Second decision Scenario
(Dependent Variable EW3)*

1. Model Summary

Multiple R	.135
R Square	. 018
Adjusted R Square	. 007
Standard Error	10.44

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	1	181.43		181.43
Residual	89	3702.25		41.67
		F = 4.35	Sig. Of F	.0392

3. Coefficients

Variables	Beta	t-values	Sig.
EW2	-.135	-2.086	.0392

*N=91

Table S8
Regression Results: Estimating ρ_h for the Second decision Scenario
(Dependent Variable EH3)*

1. Model Summary

Multiple R	.175
R Square	. 031
Adjusted R Square	. 020
Standard Error	8.291

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	1	193.88		193.88
Residual	89	6117.96		68.74
		F = 2.82	Sig. Of F	.097

3. Coefficients

Variables	Beta	t-values	Sig.
EH2	-.175	-1.679	.097

*N=91

Table S9
Regression Results: Wives' Decision behavior in the Second Decision Scenario (Endogenous Variable: YWAJUST1)*

1. Model Summary

Multiple R	.707
R Square	. 499
Adjusted R Square	. 476
Standard Error	1.858
Durbin-Watson	2.477

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	4	295.91		73.78
Residual	86	296.91		3.45
		F = 21.43	Sig. Of F	.000

3. Coefficients

Variables	Beta	t-values	Sig.
X1AJUST1	.000	-.001	.999
X2AJUST1	.298	2.982	.004
X3AJUST1	-.136	-1.732	.087
YHSTAR1	-.487	-1.521	.106

*N=91

Table S10
Regression Results: Husbands' Decision behavior in the Second Decision Scenario (Endogenous Variable: YHAJUST1)*

1. Model Summary

Multiple R	.686
R Square	. 471
Adjusted R Square	. 446
Standard Error	2.094
Durbin-Watson	2.682

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	4	335.09		83.77
Residual	86	376.96		4.38
		F = 19.11	Sig. Of F	.000

3. Coefficients

Variables	Beta	t-values	Sig.
X4AJUST1	-.065	-.783	.436
X5AJUST1	.218	1.818	.073
X6AJUST1	-.538	-4.229	.000
YWSTAR1	-.196	-1.123	.265

*N=91

Table S11
Regression Results: Wives' Decision behavior in the Third Decision Scenario
(Endogenous Variable: YWAJUST2)*

1. Model Summary

Multiple R	.671
R Square	. 450
Adjusted R Square	. 424
Standard Error	1.623
Durbin-Watson	2.418

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	4	185.23		46.31
Residual	86	226.45		2.63
		F = 17.59	Sig. Of F	.000

3. Coefficients

Variables	Beta	t-values	Sig.
X1AJUST2	-.046	-.557	.579
X2AJUST2	.345	3.744	.000
X3AJUST2	-.459	-5.630	.000
YHSTAR2	-.111	-1.201	.233

*N=91

Table S12
Regression Results: Husbands' Decision behavior in the Second Decision Scenario (Endogenous Variable: YHAJUST2)*

1. Model Summary

Multiple R	.573
R Square	. 328
Adjusted R Square	. 297
Standard Error	2.354
Durbin-Watson	2.320

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	4	232.52		58.13
Residual	86	476.65		5.54
		F = 10.49	Sig. Of F	.000

3. Coefficients

Variables	Beta	t-values	Sig.
X4AJUST2	.066	.737	.463
X5AJUST2	.465	5.202	.000
X6AJUST2	-.165	-1.815	.073
YWSTAR2	-.201	-2.208	.030

*N=91

Table S13
Regression Results: Wives' Decision behavior in the Second Decision Scenario**
(Endogenous Variable: YWAJUST1)*

1. Model Summary

Multiple R	.708
R Square	. 501
Adjusted R Square	. 471
Standard Error	1.866
Durbin-Watson	2.505

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	5	296.85		59.37
Residual	85	295.96		3.48
		F = 17.05	Sig. Of F	.000

3. Coefficients

Variables	Beta	t-values	Sig.
WPIAJUST1	.027	.340	.735
WPHAJUST1	-.027	-.343	.732
X2AJUST1	.291	2.781	.005
X3AJUST1	-.500	-4.788	.000
YHSTAR1	-.145	-1.797	.079

*N=91
****X1AJUST1 is decomposed into WPIAJUST1 and WPHAJUST1

Table S14
Regression Results: Wives' Decision behavior in the Third Decision Scenario**
(Endogenous Variable: YWAJUST2)*

1. Model Summary

Multiple R	.986
R Square	. 973
Adjusted R Square	. 971
Standard Error	2.341
Durbin-Watson	2.457

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	5	16652.4		3330.48
Residual	85	465.69		5.48
		F = 607.89	Sig. Of F	.000

3. Coefficients

Variables	Beta	t-values	Sig.
WPIAJUST2	-.068	-3.640	.000
WPHAJUST2	-.027	-2.667	.009
X2AJUST2	.734	35.57	.000
X3AJUST2	-.349	-18.87	.000
YHSTAR2	-.218	-10.51	.000

*N=91
******X1AJUST2 is decomposed into WPIAJUST2 and WPHAJUST2

Table S15
Regression Results: Husbands' Decision behavior in the Second Decision Scenario**
(Endogenous Variable: YHAJUST1)*

1. Model Summary

Multiple R	.686
R Square	. 471
Adjusted R Square	. 439
Standard Error	2.106
Durbin-Watson	2.712

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	5	335.10		67.02
Residual	85	376.97		4.44
		F = 15.11	Sig. Of F	.000

3. Coefficients

Variables	Beta	t-values	Sig.
HPIAJUST1	.050	.598	.562
HPHAJUST1	-.050	-.582	.551
X5AJUST1	.217	1.775	.079
X6AJUST1	-.538	-4.187	.000
YWSTAR1	-.096	-1.091	.278

*N=91
**X4AJUST1 is decomposed into HPIAJUST1 and HPHAJUST1

Table S16
Regression Results: Husbands' Decision behavior in the Third Decision Scenario**
(Endogenous Variable: YHAJUST2)*

1. Model Summary

Multiple R	.611
R Square	. 374
Adjusted R Square	. 337
Standard Error	2.286
Durbin-Watson	2.396

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	5	294.96		52.99
Residual	85	444.21		5.23
		F = 10.14	Sig. Of F	.000

3. Coefficients

Variables	Beta	t-values	Sig.
HPIAJUST2	.087	.999	.321
HPHAJUST2	-.050	-2.276	.025
X5AJUST2	.473	5.451	.000
X6AJUST2	-.228	-2.479	.015
YWSTAR2	-.177	-1.986	.050

*N=91
******X4AJUST2 is decomposed into HPIAJUST2 and HPHAJUST2

Table S17
MANOVA: Interaction between Love and Power
(Dependent Variables: YW1 and YH1)*

Effect	Wilk's λ	F-value	Sig.
X31	.715	14.584	.000
X61	.909	3.669	.030
X11	.999	.051	.950
X41	.997	.097	.908
X31*X11	.989	.414	.663
X61*X41	.977	.870	.423
ML	.983	.615	.544
NC	.918	3.262	.044

*N=91
Hypothesis DF=2
Error DF=73

Table S18
MANOVA: Interaction between Love and Power
(Dependent Variables: YW2 and YH2)*

Effect	Wilk's λ	F-value	Sig.
X32	.947	2.034	.138
X62	.871	5.415	.006
X12	.998	.056	.946
X42	.988	.441	.645
X32*X12	.981	.697	.502
X62*X42	.980	.754	.474
ML	.955	1.719	.186
NC	.982	.686	.507

*N=91
Hypothesis DF=2
Error DF=73

Table S19
MANOVA: Interaction between Love and Power
(Dependent Variables: YW3 and YH3)*

Effect	Wilk's λ	F-value	Sig.
X33	.693	16.158	.000
X63	.987	.465	.630
X13	.997	.128	.880
X43	.995	.184	.833
X33*X13	.983	.630	.663
X63*X43	.995	.195	.824
ML	.966	1.287	.282
NC	.980	.750	.476

*N=91
Hypothesis DF=2
Error DF=73

Table S20
MANOVA: Interaction between Love and Preference
(Dependent Variables: YW1 and YH1)*

Effect	Wilk's λ	F-value	Sig.
X31	.829	7.503	.001
X61	.801	9.049	.000
X21	.676	17.533	.000
X51	.716	14.479	.000
X31*X21	.818	8.109	.001
X61*X51	.886	4.681	.012
ML	.900	4.075	.021
NC	.972	1.042	.358

*N=91
Hypothesis DF=2
Error DF=73

Table S21
MANOVA: Interaction between Love and Preference
(Dependent Variables: YW2 and YH2)*

Effect	Wilk's λ	F-value	Sig.
X32	.781	10.103	.000
X62	.729	13.381	.000
X22	.702	15.283	.000
X52	.789	9.617	.000
X32*X22	.892	4.357	.016
X62*X52	.885	4.663	.012
ML	.955	1.678	.194
NC	.987	.476	.623

*N=91
Hypothesis DF=2
Error DF=73

Table S22
MANOVA: Interaction between Love and Preference
(Dependent Variables: YW3 and YH3)*

Effect	Wilk's λ	F-value	Sig.
X33	.648	19.826	.000
X63	.970	1.119	.332
X23	.813	8.382	.001
X53	.834	7.239	.001
X33*X23	.883	4.814	.011
X63*X53	.903	3.925	.024
ML	.972	1.070	.348
NC	.988	.429	.653

*N=91
Hypothesis DF=2
Error DF=73

Table S23
MANOVA: Interaction between Love and Power**
(Dependent Variables: YW1 and YH1)*

Effect	Wilk's λ	F-value	Sig.
X31	.661	19.723	.000
X61	.794	9.995	.000
WPOWERI1	.994	.216	.806
HPOWERI1	.981	.765	.469
X31*WPOWERI1	1.000	.000	1.000
X61*HPOWERI1	1.000	.000	1.000
ML	.947	2.166	.122
NC	.936	2.633	.078

*N=91
Hypothesis DF=2
Error DF=73
**X11 and X41 are replaced by WPOWERI1 and HPOWERI1, respectively

Table S24
MANOVA: Interaction between Love and Power**
(Dependent Variables: YW2 and YH2)*

Effect	Wilk's λ	F-value	Sig.
X32	.892	4.659	.012
X62	.786	10.474	.000
WPOWERI2	.990	.381	.685
HPOWERI2	.993	.290	.749
X32*WPOWERI2	1.000	.000	1.000
X62*HPOWERI2	1.000	.000	1.000
ML	.940	2.454	.093
NC	.997	.132	.876

*N=91
Hypothesis DF=2
Error DF=73
**X12 and X42 are replaced by WPOWERI2 and HPOWERI2, respectively

Table S25
MANOVA: Interaction between Love and Power**
(Dependent Variables: YW3 and YH3)*

Effect	Wilk's λ	F-value	Sig.
X33	.668	19.120	.000
X63	.968	1.271	.286
WPOWERI3	.970	1.210	.304
HPOWERI3	.939	2.512	.088
X33*WPOWERI3	1.000	.000	1.000
X63*HPOWERI3	1.000	.000	1.000
ML	.972	1.090	.341
NC	.992	.325	.724

*N=91
Hypothesis DF=2
Error DF=73
**X13 and X43 are replaced by WPOWERI3 and HPOWERI3, respectively

Table S26
Logistic regression: Effectiveness of Coercive Influence Strategies
(Dependent Variable: WWIN1)*

	Chi-Square	**DF**	**Sig.**
Model	28.415	2	.0000
Block	28.415	2	.0000
Step	28.415	2	.0000

Variable	**B**	**S.E.**	**Wald**	**Sig.**
YW1	.135	.084	2.592	.107
YH1	-.465	.136	11.770	.000

*N=91
Missing data=3

Table S27
Logistic regression: Effectiveness of Coercive Influence Strategies
(Dependent Variable: WWIN2)*

	Chi-Square	**DF**	**Sig.**
Model	28.003	2	.0000
Block	28.003	2	.0000
Step	28.003	2	.0000

Variable	**B**	**S.E.**	**Wald**	**Sig.**
YW2	.342	.127	2.240	.136
YH2	-.140	.091	2.329	.127

*N=91
Missing data=2

Table S28
Logistic regression: Effectiveness of Coercive Influence Strategies
(Dependent Variable: WWIN3)*

	Chi-Square	DF	Sig.
Model	13.564	2	.0011
Block	13.564	2	.0011
Step	13.564	2	.0011

Variable	B	S.E.	Wald	Sig.
YW3	.067	.097	.481	.488
YH3	-.494	.141	12.296	.000

*N=91
Missing data=3

Table S29
Regression Results: Effectiveness of Coercive Influence Strategies
(Dependent Variable: WSRI1)*

1. Model Summary

Multiple R	.249
R Square	.062
Adjusted R Square	.041
Standard Error	7.974

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	2	369.08		184.72
Residual	88	5595.17		83.58
		F = 2.21	Sig. Of F	.163

3. Coefficients

Variables	Beta	t-values	Sig.
YW1	.076	.676	.501
YH1	-.108	-.840	.404

*N=91

Table S30
Regression Results: Effectiveness of Coercive Influence Strategies
(Dependent Variable: WSRI2)*

1. Model Summary

Multiple R	.330
R Square	.109
Adjusted R Square	.089
Standard Error	7.820

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	2	501.43		250.72
Residual	88	4092.52		46.51
		F = 5.39	Sig. Of F	.006

3. Coefficients

Variables	Beta	t-values	Sig.
YW2	.-039	-.332	.740
YH2	-.309	-2.664	.009

*N=91

Table S31
Regression Results: Effectiveness of Coercive Influence Strategies
(Dependent Variable: WSRI3)*

1. Model Summary

Multiple R	.251
R Square	.063
Adjusted R Square	.042
Standard Error	6.038

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	2	216.47		108.24
Residual	88	3208.25		36.40
		F = 2.97	Sig. Of F	.057

3. Coefficients

Variables	Beta	t-values	Sig.
YW3	.139	1.328	.188
YH3	-.166	-1.577	.118

*N=91

Table S32
Regression Results: Effectiveness of Coercive Influence Strategies
(Dependent Variable: HSRI1)*

1. Model Summary

Multiple R	.373
R Square	.139
Adjusted R Square	.119
Standard Error	11.400

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	2	1842.60		921.30
Residual	88	11435.97		229.95
		F = 4.01	Sig. Of F	.032

3. Coefficients

Variables	Beta	t-values	Sig.
YW1	-.229	-2.122	.037
YH1	.216	1.474	.144

*N=91

Table S33
Regression Results: Effectiveness of Coercive Influence Strategies
(Dependent Variable: HSRI2)*

1. Model Summary

Multiple R	.372
R Square	.138
Adjusted R Square	.119
Standard Error	8.931

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	2	1126.83		563.41
Residual	88	7018.78		159.76
		F = 3.53	Sig. Of F	.034

3. Coefficients

Variables	Beta	t-values	Sig.
YW2	-.122	-1.067	.289
YH2	.296	1.432	.156

*N=91

Table S34
Regression Results: Effectiveness of Coercive Influence Strategies
(Dependent Variable: HSRI3)*

1. Model Summary

Multiple R	.423
R Square	.179
Adjusted R Square	.161
Standard Error	8.306

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	2	1325.43		662.72
Residual	88	6070.72		68.99
		F = 9.607	Sig. Of F	.000

3. Coefficients

Variables	Beta	t-values	Sig.
YW3	-.288	-2.936	.004
YH3	.343	1.523	.079

*N=91

Table S35
Regression Results: Satisfaction with Decision Outcome
(Dependent Variable: WSDO1)*

1. Model Summary

Multiple R	.572
R Square	.328
Adjusted R Square	.312
Standard Error	1.182

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	2	59.90		29.95
Residual	88	122.85		1.40
		F = 21.45	Sig. Of F	.000

3. Coefficients

Variables	Beta	t-values	Sig.
YW1	.030	.312	.756
YH1	-.560	-5.865	.000

*N=91

Table S36
Regression Results: Satisfaction with Decision Outcome
(Dependent Variable: WSDO2)*

1. Model Summary

Multiple R	.411
R Square	.169
Adjusted R Square	.150
Standard Error	1.468

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	2	38.46		19.23
Residual	88	186.65		2.16
		F = 8.92	Sig. Of F	.000

3. Coefficients

Variables	Beta	t-values	Sig.
YW2	.031	.279	.781
YH2	-.394	-3.513	.001

*N=91

Table S37
Regression Results: Satisfaction with Decision Outcome
(Dependent Variable: WSDO3)*

1. Model Summary

Multiple R	.401
R Square	.161
Adjusted R Square	.142
Standard Error	1.253

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	2	26.44		13.22
Residual	88	138.09		1.57
		F = 8.42	Sig. Of F	.000

3. Coefficients

Variables	Beta	t-values	Sig.
YW3	.061	.273	.784
YH3	-.309	-3.119	.002

*N=91

Table S38
Regression Results: Satisfaction with Decision Outcome
(Dependent Variable: HSDO1)*

1. Model Summary

Multiple R	.581
R Square	.338
Adjusted R Square	.323
Standard Error	1.306

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	2	76.51		38.26
Residual	88	150.02		1.71
		F = 22.44	Sig. Of F	.000

3. Coefficients

Variables	Beta	t-values	Sig.
YW1	-.490	-5.174	.000
YH1	.172	1.817	.073

*N=91

Table S39
Regression Results: Satisfaction with Decision Outcome
(Dependent Variable: HSDO2)*

1. Model Summary

Multiple R	.639
R Square	.409
Adjusted R Square	.396
Standard Error	1.069

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	2	69.58		34.79
Residual	88	100.57		2.14
		F = 16.26	Sig. Of F	.000

3. Coefficients

Variables	Beta	t-values	Sig.
YW2	-.445	-4.704	.000
YH2	.288	1.482	.139

*N=91

Table S40
Regression Results: Satisfaction with Decision Outcome
(Dependent Variable: HSDO3)*

1. Model Summary

Multiple R	.200
R Square	.040
Adjusted R Square	.018
Standard Error	1.133

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	2	4.73		2.37
Residual	88	112.94		1.28
		F = 1.84	Sig. Of F	.164

3. Coefficients

Variables	Beta	t-values	Sig.
YW3	-.196	-.200	.842
YH3	.021	1.843	.069

*N=91

Table S41
Regression Results: Satisfaction with Decision Process
(Dependent Variable: WSDP1)*

1. Model Summary

Multiple R	.659
R Square	.434
Adjusted R Square	.421
Standard Error	1.096

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	2	80.99		40.50
Residual	88	105.69		1.20
		F = 33.72	Sig. Of F	.000

3. Coefficients

Variables	Beta	t-values	Sig.
YW1	-.029	-.336	.738
YH1	-.670	-7.648	.000

*N=91

Table S42
Regression Results: Satisfaction with Decision Process
(Dependent Variable: WSDP2)*

1. Model Summary

Multiple R	.352
R Square	.124
Adjusted R Square	.104
Standard Error	1.358

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	2	22.97		11.49
Residual	88	162.33		1.85
		F = 6.23	Sig. Of F	.003

3. Coefficients

Variables	Beta	t-values	Sig.
YW2	-.062	-.538	.592
YH2	-.379	-3.290	.001

*N=91

Table S43
Regression Results: Satisfaction with Decision Process
(Dependent Variable: WSDP3)*

1. Model Summary

Multiple R	.472
R Square	.223
Adjusted R Square	.206
Standard Error	. 981

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	2	24.33		12.16
Residual	88	84.66		.96
		F = 12.64	Sig. Of F	.000

3. Coefficients

Variables	Beta	t-values	Sig.
YW3	.133	1.393	.167
YH3	-.430	-4.508	.000

*N=91

Table S44
Regression Results: Satisfaction with Decision Process
(Dependent Variable: HSDP1)*

1. Model Summary

Multiple R	.507
R Square	.257
Adjusted R Square	.240
Standard Error	1.401

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	2	59.67		29.84
Residual	88	172.75		1.96
		F = 15.20	Sig. Of F	.000

3. Coefficients

Variables	Beta	t-values	Sig.
YW1	-.553	-5.512	.000
YH1	-.232	-2.307	.023

*N=91

Table S45
Regression Results: Satisfaction with Decision Process
(Dependent Variable: HSDP2)*

1. Model Summary

Multiple R	.336
R Square	.113
Adjusted R Square	.093
Standard Error	1.417

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	2	22.51		11.25
Residual	88	176.68		2.01
		F = 5.61	Sig. Of F	.005

3. Coefficients

Variables	Beta	t-values	Sig.
YW2	-.388	-3.347	.001
YH2	-.204	-1.756	.083

*N=91

Table S46
Regression Results: Satisfaction with Decision Process
(Dependent Variable: HSDP3)*

1. Model Summary

Multiple R	.309
R Square	.095
Adjusted R Square	.075
Standard Error	1.105

2. Analysis of Variance

	DF	Sum of Squares		Mean Square
Regression	2	11.30		5.65
Residual	88	107.44		1.22
		F = 4.63	Sig. Of F	.012

3. Coefficients

Variables	Beta	t-values	Sig.
YW3	-.029	-2.832	.006
YH3	-.670	-1.598	.114

*N=91

Curriculum Vitae

Chenting Su

Office
BEC 262
Faculty of Business
University of Victoria
Phone: (250) 721-6407
E-mail: csu@business.uvic.ca

Home
4109 Cortez Place
Victoria, BC V8N 2Z3
Canada
Phone: (250) 721-1739

EDUCATION

1995-1999 ***Virginia Polytechnic Institute and State University,***
Ph.D program in Marketing Minor Area: Statistics
GPA: 3.65 Graduation date: August 1999

1992-1994 ***University of Alberta, Edmonton, AB, Canada***
Ph.D program in Economics

1985-1988 ***Research Institute of Business, the Ministry of Commerce, Beijing, P. R. China***
M.S. in Economics

1978-1982 ***Jiangxi Normal University, Nanchang, P.R.China***
B.S. in Mathematics

RESEARCH

Research Interests

(1) Consumer Behavior (e.g., family decision making, customer satisfaction, self-concept)
(2) Research Methods (e.g., econometric modeling, validity issues)
(3) International Marketing (e.g., choice of entry modes, strategic alliances, China's marketing)
(4) Social Marketing (e.g., business ethics, stakeholders concept, quality of life)

Journal Publications

- Sirgy, M. Joseph and Chenting Su (1999), "Destination Image, Self-Congruity, and Travel Behavior: Toward An Integrative Model," ***Journal of Travel Research***.

- Sirgy, M. Joseph and Chenting Su (1999), "The Ethics of Consumer Sovereignty in an Age of High Tech," ***Journal of Business Ethics*.**

- Lee, Dong-Jin, M. Joseph Sirgy, and Chenting Su (1998), "International Quality-Of-Life (IQOL) Orientation: The Construct and Possible Predictors," Special Issue: Designing Competitive Strategy for Global Marketing, ***Research in Marketing***, 151-184.

Competitive Conference Proceedings

- Su, Chenting (1999), "Intervening Forces in Measuring Family Power: A Neglected Aspect of Validation Research on Family Power," in ***Marketing Theories and Applications***, Vol. 10., Anil Menon and Arun Sharma, (Eds.). Chicago: American Marketing Association, 158-165.

- Su, Chenting (1998), "Toward an Understanding of Student Complaint Behavior," in ***Proceedings of the Southern Marketing Association***.

- Su, Chenting and James E. Littlefield (1997), "Chinese Urban Family Purchase Decision Making: Its Matriarchal Characteristics and Changing Nature," in ***Enhancing Knowledge Development in Marketing,*** W. M. Pride and G. T. Hult, (Eds.). Chicago: American Marketing Association, 125-131.

Papers under Review and in Progress

- Sirgy, M. Joseph and Chenting Su, "Residential Image and Housing Preference and Choice: A Research Agenda based on Self-Congruity Theory," (Under the first revision in ***Journal of Real Estate Research***).

- Su, Chenting, Edward F. Fern, and Keying Ye "Modeling Spousal Family Decision Behavior: A Dynamic Simultaneous Equations Approach," (To be submitted to ***Journal of Consumer Research***).

- Su, Chenting and Keying Ye "Measuring Relative Influence in Family Decision Making: A Hierarchical Bayesian Approach," (To be submitted to ***Marketing Letters***).

- Su, Chenting "Strategic Choice of Foreign Market Entry Modes: A Nested Logit Approach," (Working paper).

- Sirgy, M. Joseph and Chenting Su, "Developing the Stakeholders Concept to Identify Performance Standards and Measures of Business Success," (Working paper)

- Su, Chenting and James E. Littlefield, "Entering *Guanxi*: A Mainland Chinese Perspective,"(Working paper).

- Su, Chenting and Edward F. Fern "The Forces of Group Influence on Consumer Decisions: An Integrative Review," (Working paper).

- Su, Chenting "Measuring Family Power: Theory, Method, and Validity," (Working paper).

- Sirgy, M. Joseph, M. Murphy Bird, and Chenting Su "A Comparison of Purchasing Managers' Cognitive Moral Development with Other Marketing Professionals," (Working paper).

- Sirgy, M. Joseph, James E. Littlefield, and Chenting Su, "Change Consumer Habits for Environmental Sustainability," (Working paper).

Research Experiences

Virginia Polytechnic Institute and State University,

08/97-05/99	Research Assistant with Dr. M. Joseph Sirgy: International Marketing and Quality of Life
08/96-05/97	Research Assistant with Dr. Neeraj Arora: Marketing Research and Conjoint Analysis
01/95-05/96	Research Assistant with Dr. James E. Littlefield: International Marketing and Relationship Marketing

Jiangxi Academy of Social Sciences, P.R.China

Position: Director of Institute of Economics and Business (1990-1992)

Research interest and activities: micro and macroeconomics, China's market mechanism, and China's special economic zones. Participated in and managed several large-scale projects sponsored by China's Social Science Funds, such as "The Market Forecast of Durable Goods in Southern China: 1990-1995," "Economic Structural Change and Consumer Behavior Mode in a Transitional Period."

Published more than 50 papers in about 20 major economics and business journals in P.R.China during 1986-1992. Co-authored two books and one Dictionary

TEACHING

Teaching Interests

1. Consumer Behavior
2. Marketing Research
3. International Marketing
4. Marketing Strategy
5. Relationship Marketing
6. Marketing Modeling

Teaching Experiences

Virginia Polytechnic Institute and State University

06/98-08/98	Instructor; taught International Marketing (MKTG 4704) (Teaching evaluation: 4.71/5.00)
08/97-12/98	Teaching Assistant with Dr. M. Joseph Sirgy: Advertising
08/96-05/97	Teaching Assistant with Dr. Neeraj Arora: Marketing Research
01/95-05/95	Teaching Training Certificate for GTAs at Virginia Tech.

Research Institute of Business, the Ministry of Commerce, Beijing, P. R. China

1987-1988	Instructor. Courses taught: (1) Marketing Principles, (2) Market Forecasting

Jiangxi Normal University, Nanchang, P.R.China

1982-1985	Assistant Professor. Courses taught: (1) Advanced Calculus, (2) Probability and Statistics, (3) Linear Programming, (4) Topology

HONORS & AWARDS

- An entry in "A Dictionary of Chinese Contemporary Economists," (1992)
- Outstanding Achievements Award in Economics (1990-1991), Jiangxi Association of Economics, Nanchang, P.R.China

- A featured young economist in "Economic Information Daily," Nov. 29, 1989, P.R.China
- Outstanding Teaching Award (1984-1985), Jiangxi Normal University, P.R.China
- Outstanding Teaching Award (1983-1984), Jiangxi Normal University, P.R.China

PROFESSIONAL AFFILIATIONS

1996-present	Member of American Marketing Association Member of Association of Consumer Research
1988-1992	Secretary in general, Jiangxi Association of Economics, P.R.China Director, Jiangxi Association of Business, P.R.China

DOCTORAL COURSES

Marketing Courses:

Advanced Topics in Marketing I	E. Fern
Advanced Topics in Marketing II	E. Fern
Consumer Behavior Seminar	J. M. Sirgy
Advanced Marketing Research	D. Brinberg
Marketing Theory	D. Brinberg
Marketing Modeling (Audit)	K. Nakamoto

Minor Courses:

Bayesian Data Analysis	K. Ye
Probability and Distribution Theory	K. Ye
Experimental Design and Analysis	M. Lentener

Methodological Courses:

Statistics in Research I	C. Ragsdale
Statistics in Research II	R. Meyers
Multivariate Analysis	E. Smith
Statistics for Behavioral Science	J. E. Mann

Economics Courses (University of Alberta)

Microeconmics	D. S. West
Macroecnomics	P. M. Boothe
Econometrics I	A. Buse
Econometrics II	A. Buse
International Economics	Y. Xu
Economic Development	M. B. Percy
International Trade	C. E. Smith

REFERENCES

Dr. Edward F. Fern, Department of Marketing, Virginia Tech, (540) 231-5093
Dr. M. Joseph Sirgy, Department of Marketing, Virginia Tech, (540) 231-5110
Dr. James E. Littlefield, Department of Marketing, Virginia Tech, (540) 231-9170