

DIARY REPORTS ON DAILY ECONOMIC DECISIONS OF HAPPY VERSUS UNHAPPY COUPLES *

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Twenty-one couples completed a retrospective purchasing diary during a period of 28 days. The descriptions of daily purchase interactions were analysed with respect to determinants of happy versus unhappy spouses' influence and influence shifts. It was found that influence varies across product categories and depends on the levels of information of husbands and wives; spouses' relative resource contributions had no effect. If the marital relationship was harmonious, also the relative need for a commodity and the discussion style were significant predictors of influence. Influence was not stable across purchase decisions but varies considerably. It seems that couples kept a record of each other's 'influence debts', that is, if one spouse had the say in a past decision process, he or she needed to pay back his or her gains and yield in an upcoming decision.

Introduction

Almost all marketing scholars agree that the exclusive focus on the final-say outcome in isolated family purchase situations in no way taps the complex dynamics of joint decision processes (e.g., Davis 1976; Kirchler 1988b). Nevertheless, influence was generally operationalized as the outcome of interaction. Little (1986) suggests that preference should be given to studies of decision making over time. Purchase decisions are embedded in everyday family experiences and need to be conceptualized as ongoing processes, rooted in past purchase interactions as well as in other past and concurrent everyday family affairs and affecting upcoming decisions, rather than as isolated tasks with an identifiable point of departure and end. This study also will attempt to

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detect determinants of influence. In contrast to the majority of such investigations, spouses' purchase decisions are considered over a period of four weeks and conceived as connected rather than isolated events. Studying a sequence of several purchase decisions, in addition to the detection of determinants of influence also allows to assessing stability and change, respectively, of spouses' dominance over time.

Determinants of influence

Gender norms as source of influence

Reviewing the literature on household decision making suggests that one of the most important sources of influence is gender norms. Societal norms prescribe which decisions a spouse should make. In the past, the husband was accorded legitimate power to make decisions concerning extrafamilial matters and working life, whereas the wife was supposed to govern household activities and childrearing. Nowadays, social norms are perceived as changing towards a more symmetrical or egalitarian role structure which seems to lead to higher interdependence rather than autonomy of the spouses (e.g., Scanzoni and Szinovacz 1980; Scanzoni 1970; Szinovacz 1987). Nevertheless, since families in most modernized western countries are in the process of transition from patriarchal to egalitarian, societal norms still favour role differentiation among the sexes (e.g., Lewis and O'Brien 1987). According to societal norms the husband should still predominate in decisions concerning typically masculine items, whereas the wife should have more say if typically feminine items are at stake. In fact, studies on spouses' roles have found almost without exception that males are credited with greater power to decide about conventionally masculine items (e.g., technical goods, car, money matters), while females show greater influence and independence in purchases of kitchen items, clothing, food, and furniture. Joint decision making was found to increase with increasing financial costs of the product (Davis 1976; Davis and Rigaux 1974; Shuptrine and Samuelson, 1976). It has also been found that this role segregation is especially pronounced in the stage of accumulating information about the product, whereas spouses decide jointly during the stages of becoming aware and expressing a purchase desire (Davis and Rigaux 1974; Dahlhoff 1980). *It should be expected, thus, that in daily purchase decision within the household the husband is accorded more*

influence if typically masculine items are at stake; the wife should have more say in discussions about kitchen items, cloth, food, furniture. The higher the costs of the commodity the more likely influence should be balanced between the spouses.

Resource contributions as source of influence

Another explanation of influence can be derived from relative resource contribution theory as rationalized by Blood and Wolfe (1960). The authors suggest that the spouse who contributes most to the common budget exercises the greatest power in purchasing decisions. Since in most families the husband contributes the most financial resources, and has a higher education than the wife, he is vested with the power to decide about the purchases. Blood and Wolfe's (1960) conceptualization has stimulated extensive research both supporting and contradicting relative resource theory (Berger 1980; McDonald 1980). Soon after its conceptualization, resource theory was criticized especially because of its exclusive focus on economic resources (see Heer (1963), Safilios-Rothschild (1970) and Rodman (1967) for a discussion on cross cultural differences). Except from economic resources, power may also derive from non-economic contributions (e.g., status contributions, attraction). *If resource theory proves to be valid, the spouse contributing most resources to the common budget should have the most say in daily decisions.*

Involvement as source of influence

A third explanation views the partner who is most interested in the purchase as the most influential. Burns (1976) and Burns and Granbois (1977) reported a study on the influence of spouses' involvement in purchase decisions. The authors investigated the strength of preferences for particular features of a product (involvement) and the importance to the respondent of his or her spouse's preference being reflected in the final choice. The findings were the following: if a spouse was highly involved in a subdecision the partner's readiness to yield to the spouse's desire was high. In other words, the higher the interest of one spouse in a subdecision the higher his or her influence. In car purchases, for instance, husbands were found to be more involved than wives – it is, therefore, not surprising that husbands have more influence in decisions for this particular item. More recent evidence, indicating that a spouse's relative preference intensity for a product makes the strongest

contribution to relative influence, comes from Corfman and Lehmann (1987). *Summarizing, the more a spouse is interested in a commodity the higher his or her influence should be.*

Expertise as source of influence

In a review on sex differences and influenceability, Eagly (1978) assumes that higher influence is based on higher expertise, while, on the other hand, readiness to yield is based on less expertise. In a review on sources of power, also Corfman (1987) finds expertise to be an important predictor of relative influence when preferences differ. Moreover, Davis (1972) found competence or expertise in automobile decision making as ranking highly in importance as predictor of relative influence. *These results lead to the assumption that daily purchase decisions are dominated by the most expert spouse.*

Utility debts as source of influence

Recently, the decision history was addressed as an explanation for influence. Winning a decision can be conceived as a highly appreciated outcome accredited by the submissive spouse to the other. Winning a decision not only leads to a valuable outcome, namely the fulfillment of a purchase desire, but may be conceived as a highly attractive resource itself. Having one's way in decisions is an intangible resource which needs to be balanced between the spouses like a tangible resource. According to reciprocity rules (Gouldner 1960) the spouse who had the say in the past purchase decision needs to pay back his or her 'debt' to the other in an upcoming decision, that is, yield to the other's desires. It should be emphasized here that such tradeoffs are not necessarily limited to purchase situations. There can easily be a tradeoff between having one's way in a purchase situation and having one's way in a non-purchase related issue. Pollay (1968) presented a model of interaction between family members in purchase decisions which considers the decision history. First, he conceptualized the spouses' utility functions deriving from the needs for a commodity, the frequency of and satisfaction by using it, and the empathy the spouses feel for each other. Given a utility each member will derive from a product, a decision is not completely described. Since utility functions of the spouses may differ, Pollay (1968) further adds the concept of priorities. In other words, it is necessary to specify the influence of a spouse relative to the other. At a given point in time, the priority structure for

a specific product depends on the power assigned to a spouse deriving from his or her relative resource contributions, from the tangible and intangible costs for a spouse resulting in the purchase, and the 'utility debts' between the spouses. Utility debts are determined by the prior history of a coupling. In the past, a spouse may have bought a commodity, which was useful only to him or her, by spending money from the common budget. In an upcoming purchase decision with the partner having an egoistic desire, he or she might have credit or, in other words, influence based on the net residual of past decisions. The last concept in Pollay's theory concerns distributive justice. This principle states that the spouses strive for a proportional distribution of rewards. *The concept of utility debts implies that daily purchase decisions will be dominated by the spouse who had less say in past decisions.*

Satisfaction with the relationship and influence

In past purchase decision studies all close relationships were considered as being equal. However, it seems so obvious that the quality of a relationship significantly affects interrelational dynamics such as, for instance, decision making. It should be noted that in long-term relationships the distribution of rewards (such as, for instance, influence) does not need to be balanced in any single decision. Spouses seem to control who won in last decisions and do try to balance out gains. However, couples use a greater than one-period history to equalize gains (Corfman and Lehmann 1987). Especially happy couples seem to accept disproportionality for considerable time periods but strive to reach balance in the long run (Gottman 1979). Moreover, happy couples accept tradeoffs in highly different situations while dissatisfied couples and ad hoc groups expect the other to pay back resources similar to those they received and in similar situations (Foa and Foa 1976). If balance is not given on a decision, the privileged partner accumulates utility debts or influence debts in Pollay's terms which are included in future decisions. On the one hand, such utility debts oblige the winning partner to yield in the future; on the other hand, they lead the partner having lost in the past to more extreme preferences for winning in the future (Corman, 1987). The closer and the more harmonious the relationship, the more the spouses consider each other's needs and wishes and the less important is individual profit maximiza-

tion by realizing the own wishes (Clark et al. 1986; Clark et al. 1987; Clark and Reis 1988), and the longer the periods of credit of utility debts should become. *The influence in preceding purchase decisions should, thus, be more important in dissatisfied couples; a partner's interest in a commodity should be respected more if the relationship is harmonious. Dissatisfied couples may put more weight on relative resource contributions.*

The stated assumptions are tested by using a retrospective diary method. Married and unmarried cohabiting couples reported independently of each other daily on their purchase interactions by responding to questions on their relationship, influence, problem composition (e.g., product type, decision stage, importance of the issue), emotional climate during the interaction, relative resource contributions, and discussion styles.

Method

Couples

The couples were recruited through advertisements at the University of Salzburg, Austria, inviting them to participate in a longitudinal diary study. When couples called in response to the advertisement, they were informed about the scope of the study and also that no funds were available to compensate for participation; the only compensation was a detailed individual feed back of the quality of their marriage, assessed by the inventories presented below. Financial recompensation was not offered in order to enhance intrinsic motivation to participate in the study rather than extrinsic motivation, and to assure, thus, accuracy in completing the diary. From 24 couples who responded to the advertisement, 21 participated in the study. The average age of men and women, respectively, was 25 (range = 20 to 35) years and 24 (range = 20 to 30) years. Five men and four women had an elementary school education, three men and six women had completed secondary school, and 13 men and 12 women had a college education. Out of the 21 couples, six were married, the the others were living together. On the average, the couples had been living in a common household for three years (range = 3 to 84 months). Only two couples had a child (under six months old). Nine men and 11 women had no paying jobs (they were

either students or housewives), the others were employed. The monthly household budget amounted to the equivalent of US\$1000, which corresponds approximately to the average Austrian income. The estimated monthly expenditures were approximately US\$250 for rent and utilities, US\$235 for food, US\$55 for clothing, US\$85 for repayments, US\$230 for other items and US\$145 for savings.

Material

Retrospective purchasing diary

The purchasing diary was a booklet with 28 sets of questions, one for each day of the study. The questions of one set were to be answered in the evening of each day of the study. Though wife and husband filled out the diary at the same time they were requested to do it independently of each other. The following questions were to be answered each day:

- (a) Date and hour of record taking. The participants indicated the exact time they started filling out the diary.
- (b) Did I talk to my partner about a possible purchase of a product or commodity today? (The answers were either yes or no.)
- (c) If we were talking about a purchase, which commodity(ies) was (were) at stake? (Open list of products and commodities.)
- (d) If the couples were talking about more than one product that day, they had to choose jointly one product to which they referred when answering the subsequent questions. They were asked to choose the decision most important to them.

The following seven questions referred to the marital relationship:

- (e) How is the quality of our relationship today? (Bad, indifferent, good.)
- (f) Who has contributed more to our relationship today? (I, both equally, my partner. The subjects were explained what was meant by the term contributions by presenting Foa and Foa's (1976) definitions resource types, i.e., love, status, information, services, goods, money.)
- (g) Which resources were contributed? (Open list of resources.) Subjects were asked to indicate the type of resources they contributed (see Foa and Foa's (1976) list of resources.)

- (h) How weak/strong did I feel today? (7-point scale ranging from 1 = weak to 7 = strong.)
- (i) Who felt stronger (more powerful) today? (I, both felt equally strong, my partner.)
- (j) How much did my partner love me today? (7-point scale ranging from 1 = he/she did not love me to 7 = he/she loved me very much.)
- (k) Who loved the other more today? (I, both equally, my partner loved me more than I loved her/him.)

The remaining questions were to be answered only if the couple had made a purchase decision that day.

- (l) Where were we when talking about a commodity? (Open list of places and rooms.)
- (m) Who else was present? (Open list of persons.)
- (n) Who started with the purchasing interaction? (I, my partner.)
Subjects indicated who introduced the discussion topic, such as, e.g., by starting to talk about a purchase desire.
- (o) How expensive is the commodity at stake? (Value in Austrian Shillings, and 5-point scale to assess subjective value, ranging from 1 = cheap to 5 = expensive.)
- (p) How often were we talking about the commodity at stake? (5-point scale ranging from 1 = never to 5 = very often.)
- (q) How good are we informed about the commodity? (Two 5-point scales were presented, ranging from 1 = not informed at all to 5 = highly informed, one to indicate the level of information of the subject, the other to indicate the partner's level.)
- (r) How important is the commodity to me and to my partner? (As for question (q), two 5-point scales were presented.)
- (s) How long did the discussion take in minutes?
- (t) How were my and my partner's mood during the interaction? (Two 7-point scales were presented, ranging from 1 = bad to 7 = good.)
- (u) How were my and my partner's argumentation style? (Four 5-point scales were presented to indicate the degree of emotionally (1 = negative to 5 = positive) and objectivity (1 = not objective to 5 = objective) of the own and the partner's argumentation style.)

- (v) Phase of purchasing talk (The participants had to indicate whether they were talking about a purchasing desire, information collection, selection of a product, the concrete purchase realization, or about post-decisional matters.)
- (w) Were we in disagreement? (No, yes. If yes, the participants indicated who argued for/against the purchase.)
- (x) How much say did I have, how much had my partner? (The spouses indicated the ratio between the own and the partner's exercised influence on a scale ranging from 0 : 100 to 100 : 0.)
- (y) What was the outcome of the interaction? (The participants indicated whether the decision was suspended, whether they had reached an agreement to buy, or to reject the purchase.)
- (z) In the case the spouses decided to buy or not to buy they were asked to indicate how they had reached agreement. (This was an open question with several alternative response statements, e.g., one partner decided because he/she knows all about the products at stake, we asked an expert to decide for us, my partner pressured me into yielding.)

At the end, the respondents also indicated whether all relevant questions were included in the diary, and whether they had been talking to other persons other than the partner about purchasing desires. If so, they also indicated with whom and about which commodities they were talking.

Questionnaires

The German version of Cattell's 16-PF test was used to measure participants' personality structure (Schneewind, Schröder and Cattell 1983). This inventory assesses 16 primary personality factors which can be combined to five second-order factors such as extroversion-introversion, neuroticism-emotional stability etc. Furthermore, Olson and Porter's (1983) questionnaire, FACES II, which is used to assess marital adaptability and cohesiveness characteristics, was translated into German and applied. Four questions about marital harmony (happiness, commitment, love, understanding), and two questions about marital power differences (all questions, those of FACES II and the added items, were answered on 5-point scales) were added. This set of questions was used to assess the quality of the partnership. The participants were also asked to complete a time sampling diary six

times each day of the study. This diary was used to assess everyday emotional experiences. It consisted of a booklet with questions on the momentary mood state, sources of mood, salient motives, and situational characteristic, such as place or room where when completing the diary, performed activities, and other persons present. An analysis of the time sampling diary is presented by Kirchler (1988a). At the end, some demographic characteristics were questioned and the participants were asked to report on their experiences with the diaries and questionnaires, and whether they had followed the instructions to complete the diaries independently of each other.

Procedure

The participants were informed about the goal of the study and were instructed how to complete the diary. They had two days in which to become familiar with it. At the beginning, they also answered the questionnaires. At a subsequent meeting, the participants had an opportunity to ask technical questions about the diary method. Then they started with the retrospective purchasing diary and with the time sampling diary. At the end of each day the participants took the completed sheets out of the diary and put them in a diary-safe to which nobody but the respondent had access. At the end of the diary completing period, the questionnaires were to be filled out again and an interview was made with each couple in order to check whether they had followed the instructions as closely as possible. In general, all couples had filled out the diaries independently one of the other, had no severe problems with answering the questions in the diary, and thought the questions were sufficient to describe all relevant aspects of their purchase discussions.

The diary taking period took four weeks, excluding the two-day trial period. During this time, the couples were in close contact with one of the four student research assistants. Altogether, it took from the end of October 1985 to the beginning of December 1985 to collect the data.

Results

First, diary entries are described. Second, the procedures to identify happy and unhappy couples are outlined, and third, differences in

purchasing situations between the happy and unhappy subsamples are reported. Then, the hypotheses are tested: regression analyses were conducted to estimate the weight of influence determinants, analyses of variance were performed to assess variations of influence across product categories and decision stages. Finally, the cycles of influence were analyzed separately for each couple.

Overview

The total number of observations amounted to 588 (42 participants by 28 days). The diaries were completed most frequently between 19:00 and 22:00 hours (70%); 13% were completed between 23:00 and 24:00 hours; the remaining 17% were filled out before 19:00 hours).

The couples were talking to each other in 26% of the cases (i.e., 150 days for all couples) about buying one specific commodity; in 22% of the cases (128 days) more commodities than one were at stake. No joint decisions were observed on 52% of the diary taking days (302 days; this large number is partly due to missing cases in four couples diaries; these couples had registered on less than seven days each).

Husbands reported talking to somebody other than the partner about purchases in 20% of the cases (they most often talked to colleagues (31%), friends (28%), and relatives (22%). Wives reported in 28% of the cases having talked to somebody other than the partner, namely to relatives (36%), friends (31%), and colleagues (18%).

Overall, 39 different products and commodities were at stake. The respective products were food (25% out of 441 purchasing decisions; the number of decisions exceeds the number of 278 days of reports in the diaries because on several days more commodities than one were at stake), clothing (13%), furniture (6%), books and magazines (5%), going out for dinner (5%), housing facilities (3%), presents (3%), cooking and tableware (3%), and cosmetics (3%). The remaining 30 products and commodities were at stake in less than 2% of the cases. The answers in the diary were related to only one decision per day. If the couple had been talking about more than one product, they had to choose only one, namely the decision which they considered most important to them, to which they referred when answering the questions in the diary.

When the couples had decided which decision to report in the diary, they answered the questions, and indicated finally, whether all im-

portant aspects of the respective decision process were considered in the diary. In 90% of the cases the participants confirmed this question.

Definition of marital happiness

Marital happiness was estimated in the following way: first, the answers on the 30 items of Olson and Porter's (1983) inventory and on the six added questions were factor analyzed (principal component analysis) separately for husbands and wives. The analysis led to eight factors with the first factor being labeled 'marital happiness'. The items loading highly on this factor were eight items of Olson and Porter's FACES II, and three out of the six added items. (The wording of the items was the following: 'We are supportive to each other during difficult times', 'we discuss problems and feel good about the solutions', 'we consult each other on personal decisions', 'we feel very close to each other', 'we operate on the principle of fairness in our marriage', 'we like to spend our free time with each other', 'I feel closer to people outside the marriage than to my partner', 'we are afraid to say what is on the minds', 'we tend to do more things separately'. The wording of the three added items was: 'I am happy with my partner', 'we love each other', and 'our relationship is very harmonious'.)

Since the correlation of spouses' average scores on these 12 items was sufficiently high ($r(21) = 0.64$; $p = 0.001$; Spanier (1973) reports interspouse correlations on happiness scales as typically ranging from 0.40 to 0.60 only), marital happiness was defined as the mean of husband's and wife's responses on happiness items. The couples' responses were averaged and dichotomized at the median in order to obtain two independent samples, one scoring high on marital happiness and the other scoring lower. Ten couples were found to have a highly harmonious relationship whereas 11 couples were moderately unhappy. Since the use of the median as a cut-off point may be troublesome given the skewness of the distribution on marital satisfaction scores (median = 1.39; range 1.04 to 2.54; 1 = happy, 5 = unhappy), a cluster analysis was used to detect harmonious and unharmonious couples. This method led to almost identical results and is presented elsewhere (Kirchler 1988a).

As the results on happiness show most of the participants considered their marriage a harmonious one. Although the answers may be biased by social desirability, they may also indicate a self-selection bias in the

sense that couples with very unhappy relationships were not ready to volunteer in this study. It should, thus, be reminded that the sample is not only one of young couples but also one of rather happy couples. Data on older and unadjusted couples are missing and generalizations of the results to be reported here may be problematic.

Differences between happy and moderately unhappy couples

Demographic characteristics

Happy and moderately unhappy couples were similar in demographic characteristics. They neither differed significantly in the age of the spouses, education, months living together, the relationship status, job status, monthly average household budget, nor in the patterns of monthly expenditures.

Selected products and commodities

Also the type of products and commodities to which the couples referred in the diary were not significantly different. The products considered in the two groups were rather similar. The types of products and commodities which were most often chosen to be commented in the diary are the following: food (17% in happy couples and 19% in unhappy couples), furniture and household appliances (22%, 11%), clothing (14%, 15%), entertainment facilities (10%, 10%), books, magazines (8%, 5%), car, car service (7%, 7%), going out for dinner (3%, 8%), presents (7%, 4%), cigarettes, alcohol (5%, 2%), cosmetics, hair dressing (2%, 1%), jewelry (2%, 1%), vacation (0%, 2%), other products (3%, 15%). Although the value of the products at stake in happy marriages ranged from a very small amount of money to approximately US\$4700, as opposed to the value of the most expensive product discussed by unhappy couples, which amounted only to approximately US\$500, the medians were equivalent in both samples (medians = approximately US\$14). Also the price ranges in the two subsamples were not significantly different; there was only one happy couple discussing a US\$4700-commodity. On the average, a purchasing talk lasted five minutes (median; range 1 to 60 minutes) both in happy and unhappy marriages.

Social settings of decision making

Overall, the couples indicated talking about purchases in 21 different rooms and places. The persons present during purchasing decisions

Table 1
Relative frequencies of social settings chosen by happy and moderately unhappy couples to make purchasing decisions.^a

Social settings	Happy couples	Unhappy couples
<i>Rooms and places</i>		
Home	0.56	0.66
Shop	0.15	0.09
At friends' and relatives' homes	0.08 +	0.00 -
Other places and rooms	0.21	0.25
Number of observations	146	134
<i>Persons present</i>		
Spouses only	0.80	0.84
Friends	0.04	0.05
Relatives	0.08 +	0.02 -
Colleagues	0.05	0.04
Other persons	0.03	0.04
Number of observations	146	134

^a The symbols '+' and '-' indicate significant ($p < 0.01$) differences between happy and moderately unhappy couples.

ranged from no one to friends, relatives, colleagues, and others. Loglinear analysis of frequencies of social settings in the happy and unhappy group revealed that happy couples were more frequently together with friends and relatives than unhappy couples. The proportions of rooms and places most often chosen by happy and moderately unhappy couples as well as the persons present during the discussion are indicated in table 1. In this analysis gender was not included as a separate factor since couples' answers were most of the time equal. If, however, divergencies between husband's and wife's responses arose, only the wife's answer was considered.

Characteristics of purchasing decisions

In this paragraph, the frequencies of (a) different purchasing phases reported in the diaries (closed question: desire for a product, information accumulation, selection of products, purchase, post-decisional phase), (b) conflict versus agreement between the spouses (closed question), (c) decision outcome (closed question: prorogation of the discussion, decision to buy, rejection), and (d) dynamics of the decision

process (semi-open question; the participants had to describe in one sentence the way they had reached a conclusion – a few examples of possible ways were presented by the researcher. At the end, the answers

Table 2
Characteristics of purchasing decisions as perceived by happy and moderate unhappy husbands and wives (relative frequencies).^a

Characteristics	Happy couples		Unhappy couples	
	Husband	Wife	Husband	Wife
<i>Phase of purchasing decision</i>				
Desire for a product	0.37	0.36	0.42	0.34
Information accumulation	0.12	0.14	0.12	0.09
Selection of a product	0.26 +	0.23	0.14 –	0.18
Purchase	0.13	0.14	0.14	0.20
Post-decisional discussion	0.12	0.13	0.18	0.19
Number of observations	227	207	153	179
<i>Agreement versus conflict</i>				
Agreement	0.83 +	0.80 +	0.75 –	0.67 –
Conflict	0.17 –	0.20 –	0.25 +	0.33 +
Number of observations	146	147	134	138
<i>Decision outcome</i>				
Prorogation of discussion	0.21	0.19	0.21	0.21
Decision to buy	0.76	0.76	0.68	0.69
Rejection of purchase	0.03 –	0.05 –	0.11 +	0.10 +
Number of observations	142	145	133	137
<i>Decision dynamics (rule)</i>				
Competence, sex role	0.17	0.18	0.23	0.10
Money	0.05	0.04	0.11	0.10
Expert	0.00	0.00	0.00	0.01
Majority	0.12	0.09	0.16	0.14
Power	0.13	0.13 –	0.20	0.25 +
Credit	0.01	0.01	0.02	0.02
Saving	0.04	0.02	0.01	0.01
Agreement	0.48 +	0.48 +	0.28 –	0.28 –
Number of observations	128	138	116	129

^a The symbols '+' and '-' indicate significant ($p < 0.01$) differences between happy and unhappy couples.

were content analyzed and classified according to the list in table 2) are analyzed. Relative frequencies of purchasing phases, conflict versus agreement situations, different decision outcomes, and type of dynamic of the decision process are presented in table 2. Four loglinear analyses were conducted in order to detect significant differences between the happy and unhappy group.

Loglinear analyses of frequencies of happy and unhappy partners reporting various purchasing phases in their partnership led to a significant effect in the husband's reports: according to the husbands, happy spouses discussed about selecting a commodity more frequently than unhappy spouses who, on the other hand, were more often involved in post-decisional discussions ($z = 2.53$; $p < 0.01$). According to wives' reports there were no differences between the two samples.

A similar loglinear analysis with sex, marital quality and agreement versus conflict as factors yielded a significant two-way interaction 'marital happiness by agreement versus conflict' confirming that happy spouses were less frequently in conflict and more often in agreement than unhappy couples ($z = 2.81$; $p < 0.01$).

A loglinear analysis with the decision outcome as a third factor revealed a significant contrast between marital happiness and buying versus rejecting a purchase ($z = 2.65$; $p < 0.01$). As compared to unhappy spouses, happy couples reported more often making a purchase and less often rejecting it. These results seem to indicate that happy couples are more frequently jointly involved in purchase decisions and more often in agreement when buying than unhappy couples. While happy couples seem to be able to settle disagreements before buying a product, unhappy couples seem to first buy and then go for the other's agreement – this may often cause conflict.

This interpretation is supported by the results concerning decision dynamics or rules of reaching a decision. The modes or rules of reaching a decision were as follows: the spouses agree who should make a decision (competence or sex role); the purchase was rejected due to lack of money (money); an expert was asked (expert); the spouses discussed the purchase with others and accepted the opinion of the majority (majority-rule); one spouse had the power to decide and pressed the other to yield or purchased in spite of the other's disagreement (power-rule); one spouse made the decision, the partner will have the say in an upcoming purchase (credit or repayment-rule); the purchase was rejected and the money saved (saving); the spouses

reached agreement by bargaining (agreement). Loglinear analysis of frequencies of rules in the happy and unhappy samples revealed a significant difference in agreement and power-rules. While happy couples reported more often being in agreement than unhappy couples, distressed spouses accused their partner to use power-rules.

Happy and moderately unhappy spouses' relative influence

In this analysis predictors of spouses' relative influence are studied. All predictors were variables chosen directly from the diary. Since some of the items in the diary are highly correlated, some items were neglected in regressions. Aggregation of highly correlated items to one factor was avoided for not running into problems of creating predictors varying in internal consistency and stability. According to the hypotheses, the following determinants were selected from the diary:

RESOUR. Actual resource contributions. (Question (f); the higher the value, the more resources contributed by the husband relative to the wife. This item correlates highly with items (h) and (i) which were excluded from the regression analysis in order to avoid singularity problems and unstable parameter estimates.) According to resource theory, this variable should have a positive weight in the regressions.

VALUE. Value (question(o)) and

IMPORT. Importance of the product or commodity at stake. (Question (r); the higher the value, the more important the spouses considered the product. Question (r) was significantly correlated to items (p) and (q).) Decisions on valuable and highly important products should be made jointly by husbands and wives. The beta weight in regressions should be around zero, indicating that neither husbands nor wives are accorded most influence in decisions about an expensive product which are equally important to both spouses.

START. Spouses' urgency to buy the product. (This is a dummy variable resulting from question (n). It indicates whether the wife (= 0) or the husband (= 1) started the purchasing discussion.)

RIMPORT. Spouse's relative involvement in the product. (This is the difference between the importance the husband and wife attributed to the product; question (r). The higher the value, the more the husbands needed (i.e., retained important) the product as compared to the wife.) Starting a discussion and retaining a decision as more

important than the other should be positively correlated with influence. The beta weights of *START* and *RIMPORT* should be positive.

RCOMPT. Spouses' relative competence. (This is the difference between husband's and wife's information level about the product at stake; question (q). The higher the value, the better the husband was informed relative to the wife, and vice versa, the lower the value the more information the wife had.) The weight of this variable should be positive.

RINFL. Relative influence in the precedent purchasing decision. (This is the amount of influence the husband had, relative to the wife, in the antecedent interaction; the wife's influence is $100 - \text{husband's influence} - \text{question (x)}$. Values higher than 50 indicate that the husband had more influence than the wife; values lower than 50 indicate that the wife had more say in the matter.) If the past decision outcome affects present discussions, the weight of this variable should be negative.

Regression models were calculated with these seven variables controlling also for the quality of the relationship and the discussion style.

LOVE. Actual emotional state of the relationship. (Question (j) in the retrospective purchasing diary; see Method-section. The higher the value, the better the quality of the relationship. This item is correlated with items (e) and (t). The last two items were omitted in order to avoid problems of singularity. The arithmetic means of the diary observations of these three items are highly correlated with marital harmony scores which resulted from Olson and Porter's questionnaire and was used to split the sample in happy and moderately unhappy couples; $r(17) = 0.79$ and 0.42 ; $p < 0.01$ for husbands' and wives' reports, respectively. This correlation may also be conceived as a validation test.) No predictions were made for this variable. It should be stated here that it was impossible to use harmony scores resulting from Olson and Porter's instrument here because they represent an index of overall marital quality. Here, momentary estimates of the emotional state of the relationship were useful.

REMOT. Relative emotionality, and

ROBJEC. Relative objectivity of spouses' discussion style. (These two variables resulted from the difference between husband's and wife's level of emotionality and objectivity in discussing the purchase;

question (u). High values indicate that the husband was more emotionally positive and more objective than the wife.) No predictions have been made for these variables. If *REMOT* is positively correlated with influence, the spouse arguing in a friendlier way than the other is more effective. If *ROBJEC* is positively correlated to influence, the spouse who argues in a more instrumental way (that is being task oriented and focussing on a rational solution of the problem) than the other wins.

The impact of these variables on husband's influence relative to the wife's influence (question x) was calculated by regression analyses, separately for happy and moderately unhappy husbands and wives. Undoubtedly, it would have been statistically more valid to conduct regression analyses separately for each of the remaining couples. This was, however, not possible due to the limited number of observations for each couple. Therefore, the remaining 263 purchase decisions reported by 17 couples had to be considered as independent events. This procedure could lead to autocorrelated regression residuals. Although the Durbin-Watson tests revealed no significant autocorrelations of residuals, the results of the regression analyses should be interpreted with caution and as descriptive rather than inferential. Another shortcoming concerns product categories and decision stages. Due to the large number of predictors, these variables were not transformed into dummy variables and considered in the model but analyzed separately. Table 3 summarizes the results of the regression analyses.

As the results of the regression analyses show, there were no differences in husbands' and wives' perceptions of predictors of power but considerable differences between happy and unhappy couples. In happy couples, the partner who started (*START*) the purchasing discussion, had more information about the product at stake (*RCOMPT*), needed the product more (*RIMPORT*), interacted with the partner in a more objective manner than the other (*ROBJEC*), and was likely to have more say than the other spouse. In unhappy relationships, the partner who had accumulated more information about the product (*RCOMPT*) won. These results seem to indicate that the spouses' level of information was the most important indicator of influence. Moreover, in happy marriages the discussion style and a spouse's relative need and urgency for the commodity at stake (operationalized as starting the discussion) were relevant predictors.

Table 3
Determinants (standardized beta weights) of happy and moderately unhappy spouses' influence in purchasing decisions as perceived by husbands and wives.

Determinants	Happy couples		Unhappy couples	
	Husband	Wife	Husband	Wife
<i>RESOUR</i> relative resource contributions	-0.00	0.02	-0.00	-0.09
<i>VALUE</i> value of the product	-0.01	-0.01	-0.02	-0.03
<i>IMPORT</i> importance of product	-0.15	-0.08	0.00	0.02
<i>START</i> urgency to buy	0.17 *	0.16 *	-0.01	-0.02
<i>RIMPORT</i> relative importance	0.23 **	0.20 *	0.21	0.20
<i>RCOMPT</i> relative competence	0.29 **	0.29 **	0.46 **	0.23 **
<i>RINFL</i> antecedent influence	-0.04	0.05	0.04	0.05
<i>LOVE</i> relationship quality	0.10	-0.05	-0.07	-0.03
<i>REMOT</i> emotionality in discussion	0.04	-0.02	-0.04	-0.01
<i>ROBJEC</i> instrumentality in discussion	0.26 **	0.26 **	0.01	0.05
<i>R square</i>	0.41	0.43	0.33	0.22
Number of observations	139	139	124	124
Durbin-Watson test ^a	1.96	2.10	2.01	1.91

^a Durbin-Watson values are an estimation of autocorrelation of residuals, ranging from 0 to 4. Values around 2 indicate no autocorrelation (Pindyck and Rubinfeld 1981). Asterisks indicate 1% (**) and 5% (*) levels of significance.

Product categories and decision stages were not included in the regression analyses to keep the number of predictors as small as possible. To find out whether the products and decision stages affect spouses' relative influence, separate analyses were conducted. The products and commodities listed in the diaries were aggregated to eight main categories. Then, an analysis of variance with product category, marital quality, and sex (husband versus wife) as independent variables, and relative influence as dependent variable was performed which yielded a significant main effect of product category ($F(7,246) = 2.85$; $p < 0.007$). The husband was accorded more power in decisions about cars and car related items (55%; it should be remembered that values of 50% indicate equal say, values over 50% indicate dominance of the husband, and values below 50% indicate dominance of the wife; the shown scores present husbands' influence, wives' influence score is $100 - \text{husband's influence}$) and slightly more in purchases of books and magazines (53%). The wife was more influential in purchases of clothing (40%) and food (44%). Equal power was most likely in purchases of presents (51%) and furniture (48%). The second analysis

of variance, including decision stages, yielded neither significant main nor significant interaction effects.

Changes of influence over purchasing decisions

In the preceding regressions, influence differences in the past decision had no effect upon upcoming decisions. It can be concluded that either decision history is of no importance to decision dynamics or the past is important, but it is necessary to consider time lags greater than one. In this chapter the influence of past decisions upon influence is tested.

Now also the question arises whether spouses' influence is relatively constant or dynamic throughout purchasing situations. According to power theories such as Blood and Wolfe's (1960) relative resource contribution theory, the partner who contributes most of the resources to the common budget has the most say. Since relative resource contributions (e.g., money, education) do not vary rapidly, influence or power in purchase decision processes should be rather constant. According to the concept of utility debts, a spouse having the say in a purchase decision should yield to the partner in the upcoming decision; in turn the partner will yield in the next decision situation, and so on. Assuming that happy couples give each other influence credit, that is, they agree to the other's desire without asking for immediate recompense of gains in the next decision, one can expect that spouses' influence varies across purchasing decisions. These variations are, however, rather unpredictable and do not follow a rigid cycle, especially if the marital relationship is harmonious. The more harmonious the relationship, the more extended the credit periods may be.

The question on variability versus stability of influence was tested in the following way. Entries in the diary which indicated no purchasing interaction on the day of completing the diary were discarded in order to obtain a sequence of purchasing decisions for each couple. The diaries of four couples were discarded because they had reported less than seven purchasing decisions (i.e., less than one quarter of the time period of diary taking). The spouses' relative influence (question x) was scrutinized for each purchasing decision. To show the cycles of influence as perceived by husbands and wives, fig. 1 depicts the cycles of four couples. Two of the couples were randomly selected from the happy subsample, two stem from the subsample of spouses moderately unhappy with their relationship.

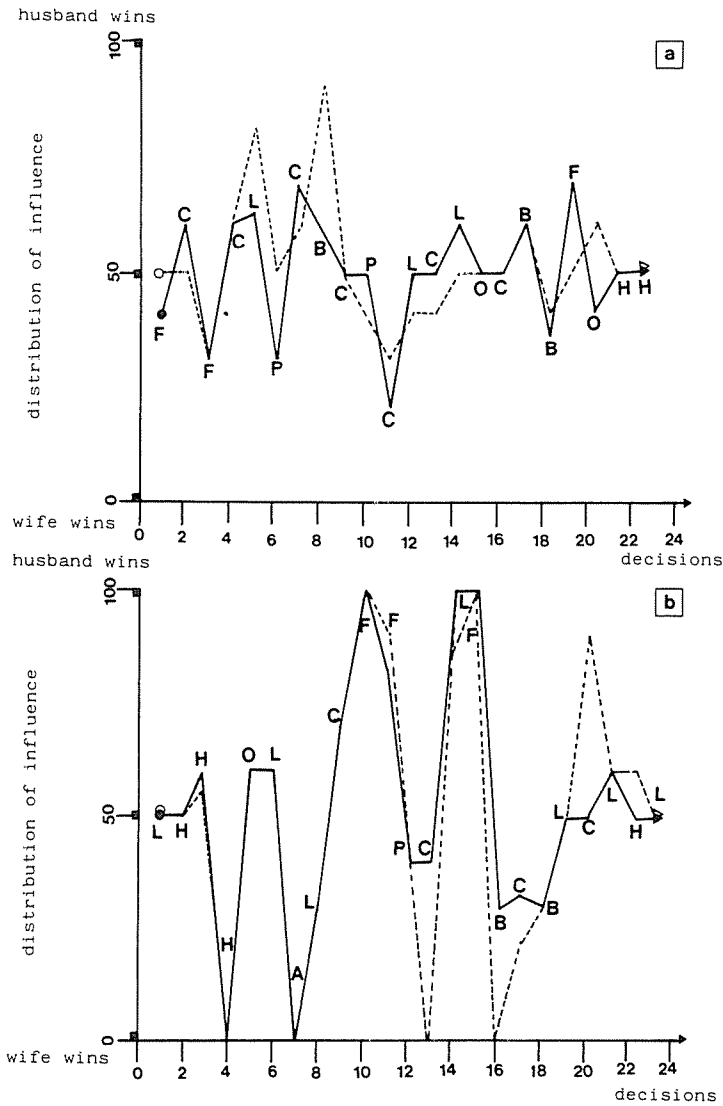


Fig. 1. Spouses' influence across a sequence of purchasing decisions as perceived by husband and wife.

Notes:

a b c d Couples a and b were happy with their relationship; couples c and d were moderately unhappy.

○-----> Wife's perception of her and her partner's influence;

●-----> Husband's perception of his and his partner's influence.

A, B, C, types of products at stake: A = car; B = books, journals; C = clothing; F = food; H = furniture; L = leisure time items; P = presents; O = other items.

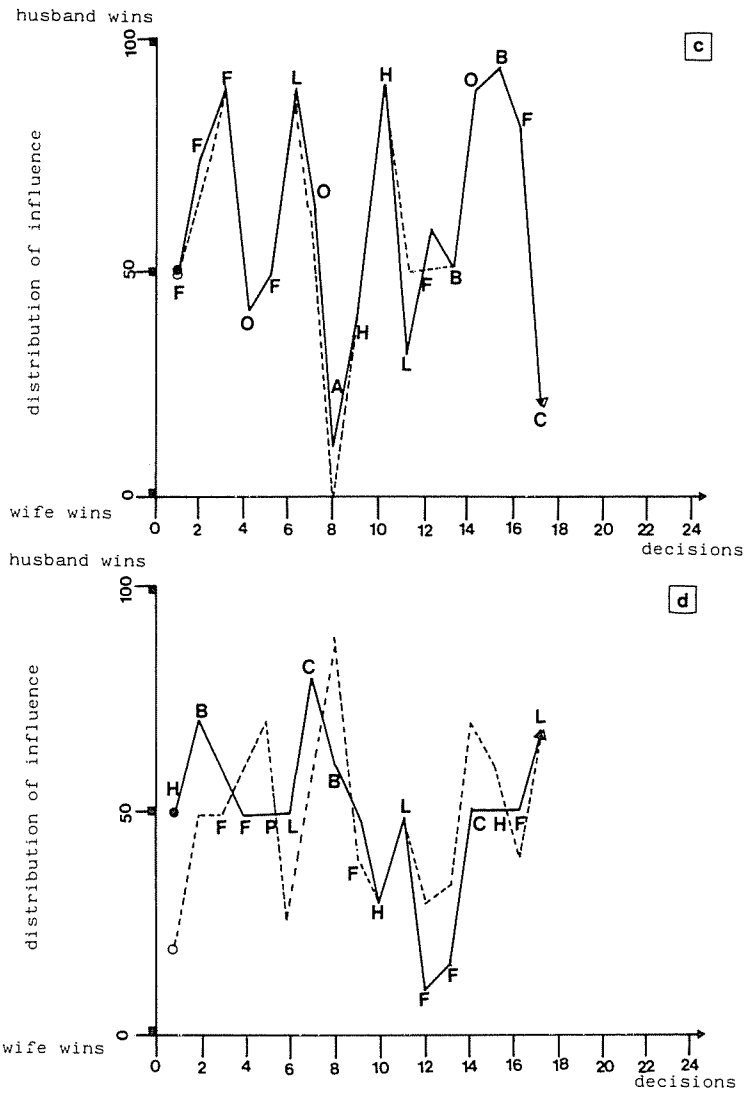


Fig. 1 (continued).

In this report, statistical analysis of influence cycles concentrated on three parameters. (a) Moving average autocorrelations of influence (in this analysis influence scores of the last, the last two, three, four, and five decisions were used, respectively), calculated separately for 17 couples and separately for husbands and wives. (b) Maximum number

of subsequent decisions dominated by the husband and wife, respectively. These scores do also present an index of stability and variability. Scores equal to one indicate a shift of influence from one spouse to the other after each decision; scores higher than one indicate relative stability. (c) Difference between absolute frequency of the husband dominating a purchase during the diary taking period and the frequency of the wife having more influence. These scores were included as dependent variables in three analyses of variance. If couples seek to repay past gains, the autocorrelations of influence should be negative. According to the hypothesis about different periods of credit allowance in happy and unhappy couples, the autocorrelations should be closer to zero in happy couples, the maximum number of subsequent decisions dominated by one spouse should be higher; also the difference scores should be higher.

The first mixed between-within analysis of variance with the autocorrelations as dependent variables and marital happiness, sex, and time span of influence (influence in the last decision, mean influence in the last two, three, four, and five decisions) as independent factors yielded a significant main effect of the time span ($F(4,60) = 4.11$; $p = 0.005$). No other main and no interaction effects were statistically significant. The autocorrelations at time lag 1 were close to zero (average $r = -0.09$) and increased steadily up to time lag 5 (average $r = -0.10$; -0.22 ; -0.20 ; and -0.35). This result indicates that past gains are important determinants of influence. Contrary to the expectations, the cycles of influence or the periods of repayment of influence do not differ between happy and moderately unhappy couples. Both happy and unhappy couples took spouses' past influence into consideration and sought to pay back influence debts. Gains did not need be paid back in one-period purchasing history but were equalized over longer periods. It seems that, as exchange theory suggests, spouses dominating a decision process or a series of subsequent decisions need to yield to the other in one of the next purchase decisions.

The second analysis of variance with the maximum number of subsequent decisions dominated by one spouse revealed no significant effects. On the average one spouse dominated two to three decisions at the maximum during the diary keeping period. The respective means for husbands and wives, respectively, as perceived by husbands were 2.88 and 2.56; wives reported that husbands dominated 2.56 decisions at the maximum whereas wives dominated maximally 2.81 decision

periods. This result shows again that influence fluctuates approximately equally in happy and moderately unhappy couples.

The last analysis of variance with the difference scores as dependent variables also showed no significant effects. On the average both spouses had equally frequently the say. During the diary keeping period, the wives dominated 4.79 decisions on the average, whereas husbands had more influence in 4.68 decision situations. As exchange theory predicts, influence of husbands and wives was balanced out over longer periods of time. This was true for happy (difference between husbands dominating and wives dominating = 0.25) as well as for unhappy couples (0.28).

In summary, these results indicate that the length and pattern of influence cycles does not differ among happy and moderately unhappy couples. Moreover, it seems that – as the concept of utility debts implies – spouses dominating a decision yield to the partner in an upcoming decision (fig. 1). Gains need to be repaid. Having the say in a decision process requires yielding to the other in one of the next purchase decision interactions.

Conclusion

This study served to analyze determinants of influence and influence shifts in purchasing decisions within the household. Moreover, it focussed on differences between couples satisfied with their relationship and couples moderately dissatisfied. First of all, some limitations of this study should be emphasized. It is obvious that sample size and sampling procedure limit how far the results can be generalized. Moreover, the diary method may bear shortcomings due to self selection biases of the subjects and other problems discussed, for instance, by Bishop et al. (1975).

The results should, thus, be conceived as preliminary data to be proved in upcoming studies rather than as findings completing the picture of purchase decisions under a common roof.

Similarly, as in previous studies (e.g., Davis 1972; Corfman 1987; Corman and Lehmann 1987), the present investigation allows the conclusion that spouses' relative expertise dominates purchasing decision processes. Also, the decision history was of primary significance. The latter acted to ensure equal distribution of influence between the

spouses. Distribution of influence did not need to be balanced in any single decision. In fact, influence in the previous decision situation did not turn out to be a potential predictor of influence in the ongoing decision. The impact of past influence distributions on the present one increased, however, the longer the time lag became. This result is in line with Corfman and Lehmann's (1987) findings, indicating that couples use a greater than one-period history to equalize gains.

With regard to predictors of influence, this study clearly reveals that Blood and Wolfe's (1960) relative resource theory is no longer a potential theory to explain differences in spousal influence. Being the society in transition from patriarchal to egalitarian relationships, resource contributions seem to have become increasingly less important as power bases. Here a word of caution is needed: in this study, resources were operationalized in a different way than in Blood and Wolfe's study, namely as daily contributions on love, goods, services, information, status, and money rather than as education, salary, and occupational status.

Interestingly, despite societal changes from patriarchal to egalitarian families, there are still traditional role segmentations present which explain differences of influence between husbands and wives. Although, the differences of influence were small, women still had more say in purchases of clothing and food, whereas husbands were accorded more power in decisions about cars and car related items. It may be expected that in future studies on predictors of influence both spouses will be found to exert a similar amount of influence too, if these items are at stake.

This study also shows that the quality of the relationship affects purchasing decision (and, assuming a reciprocal effect, marital quality is affected by purchasing decisions processes). Happy couples deliberated about purchases more often in the presence of significant outside persons such as relatives and talked more often at their homes about future purchases than moderately distressed couples. They also reported more often on situations where they were selecting one commodity out of a number of alternatives and were discussing purchases less frequently in retrospective. These results probably indicate that happy couples were more willing to invest in common products, and they were talking about purchase desires in order to come to an agreement with each other. Unhappy spouses were talking more after a completed purchase probably because they had bought a

desired commodity egoistically, that is, they had made an individual decision without giving the other the chance to express his or her desires. After the purchase had already been made, the passive partner, that is the partner who was not buying, may have claimed for this omission. This interpretation is also supported by results of previous studies (Wagner et al. 1983; Kirchler and Wagner 1987).

Happy couples were in agreement more often and bought the commodity desired by one or both spouses. If conflict occurred, happy couples tried less frequently to settle it by using power rules which imply coercion than dissatisfied couples. The purchasing decision atmosphere for happy couples was less hostile and more cooperative than for distressed couples. These characteristics are significant premises for spouses' concern for each other's preferences, for fairness, and joint rather than egoistic profit maximization (cf. Levinger 1980; Scanzoni 1979; Hinde 1979).

As far as predictors of influence are concerned, this study clearly reveals that both happy and unhappy spouses relied on the most expert partner (Davis 1972, 1976; Corfman and Lehmann 1987). In addition to this, the discussion style and the spouses' relative need for the commodity at stake count in harmonious relationships. Happy spouses were more empathic than unhappy spouses, that is, they considered the other's desires and yielded to their wishes. These findings are in line with Burns and Granbois' (1977) results and with findings more recently reported by Corfman and Lehmann (1987), Seymour and Lessne (1984), Wagner et al. (1983), Brandstätter et al. (1987), and Kirchler and Wagner (1987). In happy marriages, also the spouse coming up with more objective arguments was more likely to win. This result might indicate that expertise (which was already identified as an important predictor of influence) means something different to happy spouses as compared to unhappy couples. Happy spouses are more persuasive if they argue in a more objective way than the other, thus, if their expertise is based on instrumentality, or, in other words, if they are perceived and behaving like an expert authority. Since in the unhappy group the discussion style was not significant, unhappy spouses may conceive expertise as an attribute of a spouse which may also be based on dogmatic authority.

Finally, it was hypothesized that couples keep track of gains and losses in the past and use their decision history as a way to compromise and to balance out dominance and submission. While unhappy spouses

were expected to use repayment rules in a rather rigid way, happy couples were hypothesized to trust that the partner is willing to pay back gains and allow long periods of credit. In idealistic relationships characterized by mutual love, trust and extreme benevolence of the partners, the periods of credit should become endless, so that keeping book of gains and losses becomes superfluous (see Kirchler et al. (subm.)). This study failed to confirm differences between happy and unhappy couples' treatment of their decision history. Spouses in both happy and unhappy subsamples sought to pay back gains after rather short periods. These periods were, however, longer than one decision making sequence (two to three periods), and, thus, in the regressions the past influence was not found to affect actual decision making. Throughout the experimented decision sequences, spouses tended to distribute gains equally.

The lack of evidence for differences in happy and unhappy couples deserves a few comments. Firstly, the assumption of different credit periods was not assessed in two samples differing extremely happy spouses with severely distressed couples could yield results confirming the hypothesis on different models of credit giving. Secondly, if there should be no differences in the periods of repayment, happy and unhappy couples may nevertheless use different strategies to control gains and losses. Spouses might focus on different aspects in their 'account', either on demands or on obligations, just as the quality of marriage might be. While unhappy spouses might keep track of demands and request the partner to pay back his or her past gains, happy couples might keep track of obligations and seek to pay back their gains in time. The results were balanced loss-gain-accounts after rather short periods in both happy and unhappy couples. The motivation and thus the causes for balance, and this is highly important, were however, different (Kirchler et al. (subm.)).

What does this paper add to the growing body of knowledge on household decision making? It has been shown that students of household decisions need to consider the strength of emotional bonds between partners. Studying purchase behavior of couples in general may be misleading since the interaction process differs among happy and unhappy couples. This study also shows the usefulness of the concept of utility debts to understand influence disproportionalities in purchase decisions. This concept implies that purchase decisions need to be studied as longitudinal events, embedded in everyday family life

rather than as isolated events with a point of departure and an end. Both the necessity to consider the impact of marital harmony and to consider purchase decisions as interwoven with a series of daily activities of spouses have been ignored in past decision making studies.

Negligence of inseparability of household activities and isolation of purchasing decisions was necessary in questionnaire studies. Such questionnaire studies do inherit severe shortcomings. Due to forced recall of quite humdrum past events and response sets, subjects may find it difficult to remember influence distributions and therefore answer in a stereotypical way (Larzelere and Klein 1987; Miller and Boster 1988). The development and application of new methods, such as diary techniques, may provide new insights in family life. No longer relying on subjects' subjective reconstruction of past purchasing events but trying to collect data in situ, 'when the phenomenon is moving', may result in less stereotypical data, better understanding, and new theories of consumer behavior.

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