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INTERPERSONAL TRANSFORMATIONS IN MARRIED
AND COHABITING COUPLES

A Thesis Presented

By

VICTOR MARK HAIFLEIGH BORDEN

Submitted to the Graduate School of the
University of Massachusetts in partial fulfillment
of the requirements for the degree of

MASTER OF SCIENCE

September 1983

Psychology

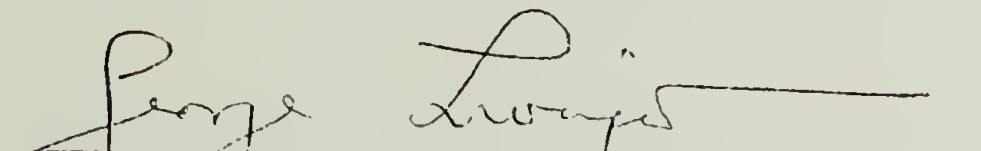
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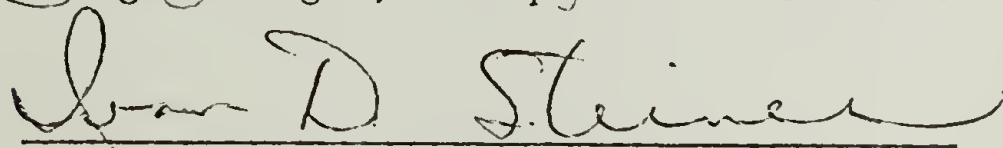
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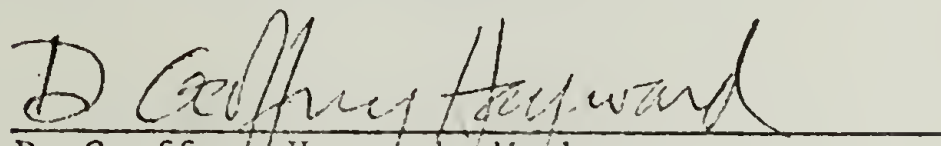
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ACKNOWLEDGEMENT

Upon completing this thesis on intimate relationships, I would like to thank all of my family and friends for providing me with the necessary background. A thesis is usually a culmination of largely academic efforts, with emotional support from intimate others helping to keep the writer sane. In this case, however, my closest friends and my family have additionally provided me with a wealth of understanding for the current subject.

George Levinger was instrumental in the development of many of my thoughts on this topic. He also anguished with me through the long, often frustrating, but ultimately rewarding experience of following this project through to completion. Ivan Steiner's incredible breadth of knowledge was an invaluable resource, only overshadowed by his constant availability and willingness to talk. Jeff Hayward helped me to keep my feet on the ground, both academically and emotionally.

My parents have always been my greatest strength. And, now my in-laws have increased the foundation. I would also like to acknowledge the unquestioning love always offered by Baer. His purrs often provided me with the proper perspective.

Finally, and most importantly, this entire effort, along with most of my efforts, is dedicated to Sandra M.H. Borden; my partner in life and for life. This is as much her accomplishment as it is mine. We did it.

ABSTRACT

Interpersonal Transformations in Married and Cohabiting Couples

(September, 1983)

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Members of married and cohabiting couples change through the course of their relationship. Many familiar activities take on new meanings when performed with an intimate partner, or when performed for the partner's benefit. As the relationship progresses, participants often find that their feelings about themselves and about many things around them have changed.

To focus on such transformations, Harold Kelley's (1979) model of personal relationships, and the earlier work on which it is based (Kelley & Thibaut, 1978), are critically examined. Several refinements are proposed to aid in the application of this unique perspective to the study of intimate relationships. Of particular interest are differences according to marital status and gender.

Seventeen married couples and fifteen unmarried cohabiting couples completed a questionnaire regarding their relationship history, relationship satisfaction, and current feelings towards engaging in various activities with and without their partners.

In spite of uncertainties in the measurement strategies, there was strong evidence that interpersonal transformations play an important role in intimate relationships.

Small differences were found in the prevalence of different types of transformations between the married and cohabiting couples. In addition, the Marrieds were, as a group, more satisfied with their relationships, compared to the Unmarrieds.

Gender differences were found in the division of household chores. Although the women performed more of the household chores, they were also more satisfied with their roles in household chores than were the men. There were no gender differences in the prevalence or types of transformations experienced by pair members.

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C H A P T E R I

INTRODUCTION

Two individuals involved in a long-term intimate relationship are often identified as a couple. More than just a social label, this identity reflects a transformation by pair members in the motivation that guides many of their actions. Whereas 'uncoupled' individuals may act primarily in accordance with their own self-interest, intimate pair members are likely to act with the joint interests of the pair in mind.

For married and cohabiting couples this transformation from "I" to "we" is a particularly important issue. Such couples' lives are intertwined in many different domains, ranging from the practical matters of day-to-day living to the deeply emotional features of intimacy. Each participant must take account of the partner's feelings in his or her own action for their relationship to proceed satisfactorily.

To focus on this type of transformation, Harold Kelley (1979) has proposed a model for conceptualizing close relationships. Kelley refers to the process as follows:

A person can respond under certain conditions, only to direct consequences of [an] event for the self...However, with awareness of its consequences for others, a person can and does evaluate the event partially in relation to those consequences. This constitutes a transformation of the person's motivation. (pp. 68-69, emphasis added)

This transformation of motivation is vital to the smooth functioning of a relationship and to the mutual satisfaction that

participants experience. Kelley states:

...it is important for interdependent persons to understand each other's transformational tendencies. To the degree that these are dispositional--that is, stable over time and general across situations--they are exceedingly important causal factors contributing to the resolution of interdependence problems and determining the course of the relationship. (p. 83)

There are many courses that a relationship may take and every relationship follows a partly unique one. Societal norms and customs do place certain limits on the variety of forms within which a relationship may run its course. These norms and customs are, however, subject to change. Whereas marriage has traditionally been seen as the ultimate form of intimacy, unmarried cohabitation has become an increasingly prevalent form.

A couple's decision to live together as either married or unmarried partners is based, in part, on members' attitudes towards the institution of marriage. Another important aspect of this decision are the partners' beliefs and feelings (i.e., dispositions) about their relationship. Inasmuch as transformational tendencies reflect these interpersonal dispositions (as Kelley argues), there may be some interesting differences in the manner in which married and unmarried cohabitants take each other's feelings into account.

According to Kelley, the transformation process is rooted in the effects that pair members' actions have on their mutual outcomes--that is, intimate pairs are outcome interdependent. Intimate pair members depend on each other for emotional and physical gratification, those who live together (whether married or unmarried) are furthermore interdependent in regard to household maintenance. There prevail,

however, gender-based stereotypes towards household chore performance. Such stereotypes can have great impact on the way in which participants perceive each other's feelings towards these tasks. Therefore, gender differences may have important implications for the transformation of motivation between members of such couples.

Kelley's (1979) model, and the earlier work on which it is based (Kelley & Thibaut, 1978), provides a unique perspective for exploring issues of interdependence and motivational transformation in intimate (cohabiting) couples (discussed in pp. 4-24). Unfortunately, there has been little empirical work based on these concepts. Furthermore, the limited data that have been gathered were obtained from pair members' responses to artificially constructed vignettes. The present study is a first effort at using Kelley's model to explore interdependence in activities of actual long-term intimate pairs.

In attempting to measure motivational transformation in intimate pairs, several difficulties in Kelley and Thibaut's conceptions were encountered (pp. 25-38). After examining these difficulties, it was felt necessary to refine the transformation concept in order to apply it to the study of long-term intimate relationships (pp. 38-43). Furthermore, new operational strategies were needed for the empirical application of these concepts (pp. 43-47). After settling these difficulties, the study of married versus unmarried cohabitation (pp. 47-50) and gender differences in the division of household chores (pp. 50-52) were considered.

The first goal of this thesis, then, is to carefully examine Kelley and Thibaut's (1978; Kelley, 1979) perspective, with an eye towards using it to study the home lives of married and unmarried cohabitants. These conceptual issues focus on measuring motivational transformation, and exploring the association between these transformations and pair members' satisfaction with their relationship. The second goal of this thesis is to use this unique perspective to examine more substantive research questions concerning (a) differences and similarities between married and unmarried cohabitants, and (b) differences in the division of household chores between males and females.

Conceptual Background

The levels-of-interdependence model of personal relationships

Kelley's (1979) model of personal relationships is based on three essential elements:

- (1) Interdependence in the consequences of specific behaviors, with both commonality and conflict of interest...
- (2) Interaction that is responsive to one another's outcomes...
- (3) Attribution of interaction events to dispositions...(pp. 3-4)

The first element--outcome interdependence--refers to "how [partners] control one another's outcomes, which include, on the one hand rewards and benefits and on the other hand costs and punishments" (p. 13).

Intimate pairs are often in situations where their individual behaviors affect their shared environment and, in turn, affect each other. For example, if one participant (P)¹ wishes to vacuum the living-room floor, his partner (O) may also benefit. But if, at that same time, O wants to watch TV, she may be negatively affected by P's action. Here we see examples of common and of conflicting interests, respectively; common interests are characterized by correspondent outcomes (i.e., P and O both like it if P vacuums), whereas conflicting interests are characterized by noncorrespondent outcomes (i.e., P's vacuuming interferes with O's preferences).

Any two persons who share an environment are outcome interdependent in this fashion. Intimate pairs are additionally characterized by the concern each member has for the other's feelings. According to Kelley, this is the second basic element of personal relationships: interaction that is responsive to one another's outcomes.

P and O approach a given situation (such as an apartment that needs cleaning) with certain feelings about how they would like events to transpire (i.e., certain expected outcomes for their joint actions). They may both desire a clean apartment but P may not want to do any cleaning at all, while O would like both of them to clean it. P may then realize that it is only fair that he do some of the cleaning and O may, in turn, suggest that P perform mainly easier, less disagreeable

¹From here on, P and O will be used to refer to a prototypic couple, where P is always male, and O female.

tasks. In the language of Kelley's model, P and O have transformed their motivation towards cleaning in light of their noncorrespondent outcomes in the given situation, thereby creating a new effective situation marked by more correspondent outcomes. The effective situation then governs P and O's subsequent actions.

Finally, P and O take note of how the other has responded to their own feelings. Over a variety of events and occasions, P and O discover each other's attitudes, traits, and values relevant to the relationship. P notices that O has repeatedly gone out of her way to please him, and therefore concludes that she really cares about him and loves him. This is Kelley's third basic element of personal relationships: the attribution of interaction events to dispositions.

Kelley believes that behaviors in which pair members go out of their way to accommodate the other's interests are especially important, for only then do they discover significant interpersonal attributes.

Of all the stable properties other persons possess, these interpersonal dispositions are the most important for close personal relationships. Such notions as love, commitment, dominance, and competitiveness (to name a few) are conceivable only in relation to transformational phenomena. (p. 94)

If P concludes that O cares about him, he may react by being more responsiveness to O's feelings. In turn, this further encourages O to conclude that P cares about her, and thus encourage O's increased caring for P. Thus P and O are interdependent at the dispositional level, as well as at the behavioral level. Accordingly, Kelley labels this a "levels-of-interdependence model" of personal relationships.

The transformation of motivation process, as described by Kelley, is the central focus of this thesis. In order to evaluate this process, it is necessary to assess partners' outcomes in "given" and "effective" situations. The following section presents Kelley and Thibaut's (1978) basic conceptual tool for assessing outcome interdependence, and its derivative constructs. These basic concepts are highly relevant to applying Kelley's (1979) model to the empirical study of close relationships.

The analysis of outcome interdependence

The outcome matrix. The outcome matrix, as Kelley (1979) states, "is simply a logical method for describing how each person's outcomes depend in various ways, on his own actions and his partner's actions" (p. 24). In general, this matrix is composed of any number of rows and columns; where each row represents a behavior that one actor may enact, and each column represents a simultaneous behavior of the other actor. Each cell of the matrix then represents one combination of the two persons' actions--that is, one interaction event.

In its simplest form (the only form dealt with here), the matrix considers the interaction of two persons, each with a choice of two alternative actions (see Figure 1).

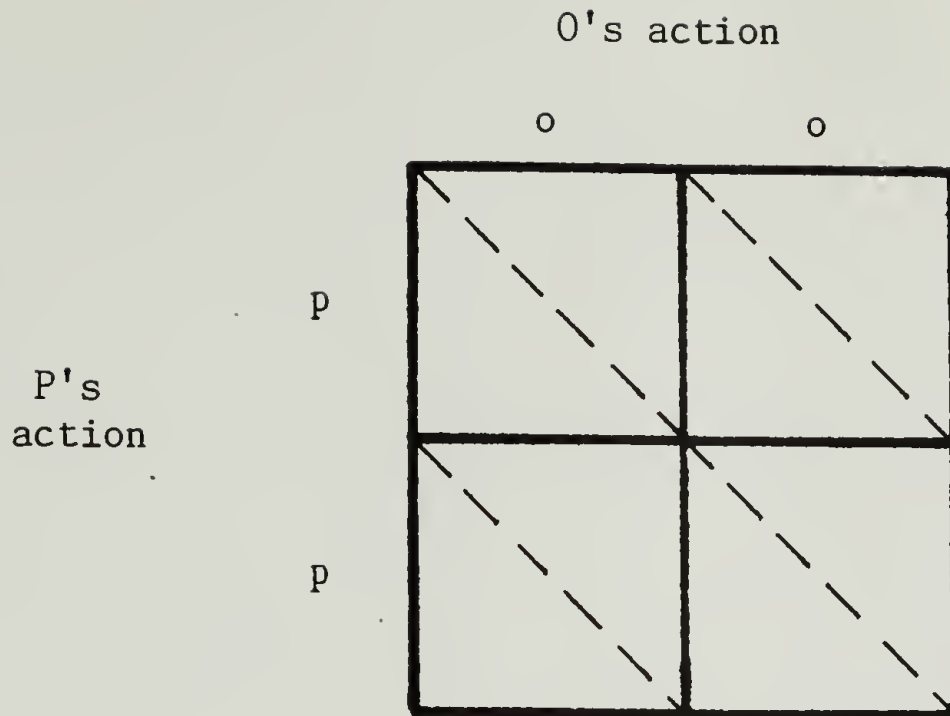


Figure 1. The 2x2 outcome matrix for persons P and O.

The values entered in each cell of the matrix represent P's expected outcomes (below the diagonal) and O's expected outcomes (above the diagonal) for that combination of P and O's action. The following two examples will help to illustrate the application of the outcome matrix to dyadic interaction.

In the first example, pair members independently respond to the following:

"Assume that you and your partner share an apartment. Cleaning it is a disagreeable job but it has reached the point where it needs to be done. However, each of you has other time-consuming things to do (work, study, etc.). Rate each of the following possible events as to the satisfaction or dissatisfaction that you would feel"...

(1) Both of you clean; (2) You clean and your partner does other things; (3) You do other things and your partner cleans; and (4) You both do other things. (from Kelley, 1979, pp.24-25)

		O's action	
		Clean	Not Clean
P's action	Clean	+5 +3	+3 -6
	Not Clean	+2 +8	-5 -1

Figure 2. An example of P and O's outcomes for apartment cleaning.

Figure 2 shows that O would be most satisfied (+5) if both she and P were to clean and most dissatisfied (-5) if neither one cleans. P, on the other hand, would be most satisfied (+8) if O were to clean the apartment by herself, and most dissatisfied (-6) if he were to do the cleaning by himself.

A somewhat different use of the outcome matrix is illustrated by pair members' responses to the following:

"On a given evening, there are two movies that you may go to (1) a movie that you [personally] very much want to see and (2) [a] movie [that your partner very much wants to see]."

[Rate the following events]

"1. You go together to the movie that you want to see; 2. You go alone to the movie that you want to see and [your partner] goes alone to the [movie that s/he wants to see]; 3. You go alone to the [movie that your partner wants to see] and [your partner] goes alone to the movie that you want to see; and 4. You go together to the [movie that your partner wants to see]." (from Kelley, 1979, pp. 63-64)

		O's action	
		Go to P's preferred movie	Go to O's preferred movie
P's action	Go to P's preferred movie	+8 / +7	+2 / +1
	Go to O's preferred movie	-4 / -8	+5 / +7

Figure 3. An example of P and O's outcomes for movie going.

In this example, O would be equally satisfied (+7) if she and P went together to either partner's preferred movie. Here P would be most satisfied if he and O went to his preferred movie (+8) and less so (+5) if they both went to O's preferred movie. P and O would be dissatisfied in the unlikely case that they each went to the other's preferred movie.

These examples show that the outcome matrix is a very general conceptual tool. Even in its simplest (2x2) form, it can be used to summarize a pair's outcomes for different activities in differing combinations. The reader should take note of two fundamental differences between the two examples.

First, cleaning the apartment and going to a movie represent two different classes of activities, a task activity and a social (leisure)

activity, respectively. When considering one's expected outcome from engaging in a task activity, one is likely to think of how it will feel both to perform the activity and to accomplish the task goal. When considering one's expected outcome from a leisure activity, however, one is likely to think only of how it feels to engage in that activity.

A second fundamental difference concerns the combination of self and partner's actions being evaluated. In the cleaning example, each actor evaluates self and/or partner either cleaning or not cleaning. In the movie example, the actors evaluate self and/or partner going either to own or other's preferred movie; in each case, both partners go to a movie.

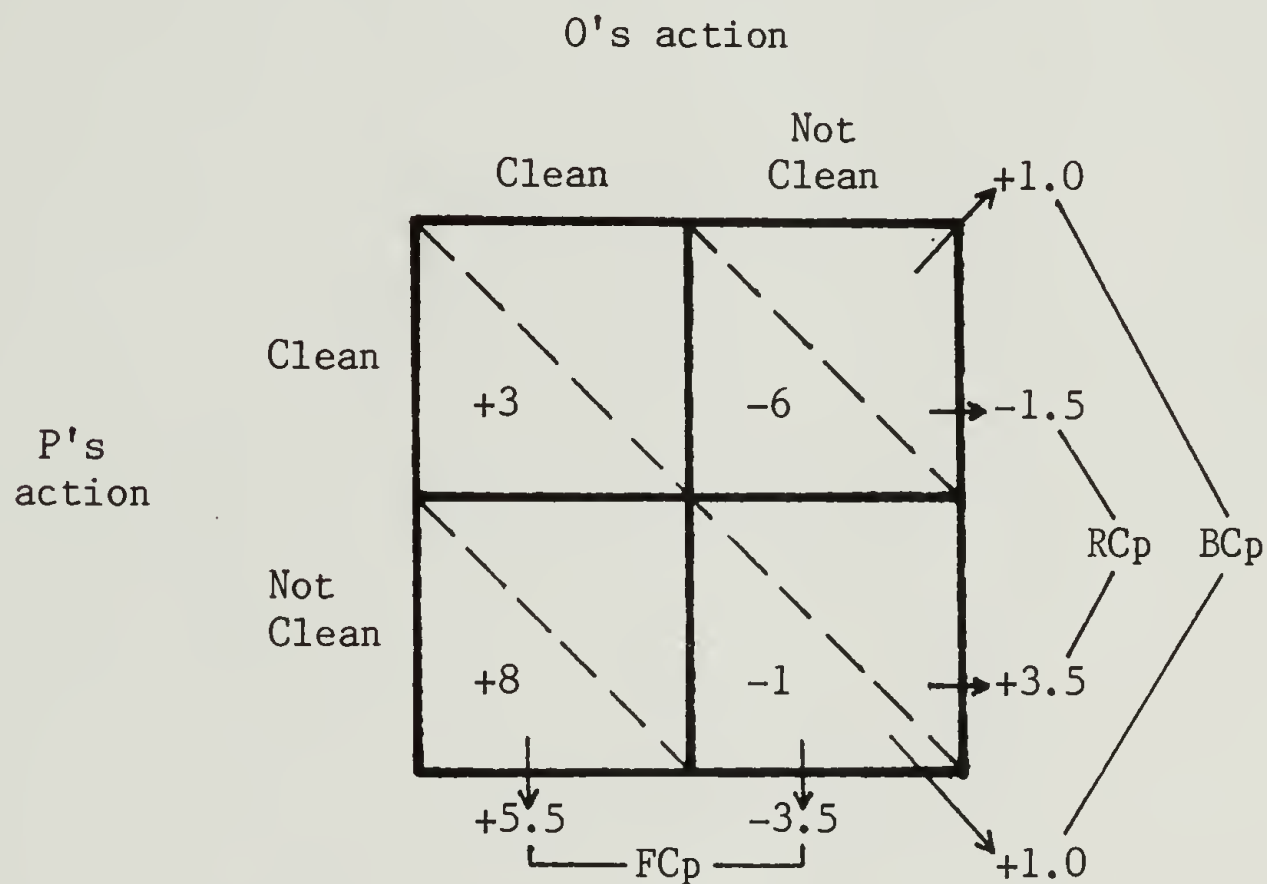
These two differences (type of activity and type of interaction combinations) are independent. It would be possible to ask partners to evaluate (a) self and/or partner going or not going to a movie and (b) self and/or partner cleaning what self prefers to clean or cleaning what partner prefers to clean (e.g., clean P's workshop or O's sewing room), although Kelley (1979) did not discuss those instances.

The components of interdependence. Next, Kelley and Thibaut's (1978) use of the outcome matrix for deriving properties of interdependence is considered. They reason that each actor's outcomes in a 2x2 matrix can be decomposed into three components of variation.

The analysis of rectangular arrangements of numbers such as our outcome matrices is made possible by a procedure derived from what is known in statistics as the analysis of variance. (p. 36)

They use this procedure to derive the components of interdependence which "represent, for each person, his direct control over his own outcomes (reflexive control), the direct control over his outcomes by his partner (fate control), and the two persons' joint control over his own outcomes (behavior control)" (p. 31).

Kelley and Thibaut's procedure is illustrated in Figure 4, using the apartment cleaning example from the previous section. For simplicity's sake, we consider only P's outcomes.



P's component weights:

Reflexive control: $RCp = [(-1.5) - (+3.5)] = -5$ units

Fate control: $FCp = [(+5.5) - (-3.5)] = +9$ units

Behavior control: $BCp = [(+1.0) - (-1.0)] = 0$ units

Figure 4. Components of variation in P's outcomes for apartment cleaning.

Following Kelley and Thibaut², P's average outcomes for each row, column, and diagonal of the matrix are calculated. These six averages are displayed around the total matrix in Figure 4. For example, P's average outcome for the first row of the matrix (where P cleans and O either does or does not clean) is calculated as follows: $[(+3)+(-6)]/2 = -1.5$.

By comparing P's two row averages it can be seen that P's outcome changes by 5 units when he moves from cleaning to not cleaning, regardless of O's action. This then is P's direct control over his own outcomes, or reflexive control. Since P is less satisfied when he cleans, reflexive control is given a negative sign.

Similarly, the difference between P's column averages represent how his outcomes change when O moves from cleaning to not cleaning, regardless of his own action. This is O's direct influence over P's outcomes, or fate control. In this example, P is 9 units more satisfied when O cleans as compared to when she does not clean (FCp=+9). Finally, comparing P's diagonal averages we see that P is neither more nor less satisfied if he and P engage in the same activity (upper left to lower right diagonal) or engage in different activities (lower left to upper right diagonal). This represents the control over P's outcomes that is a result of how his action alligns with O's action, or behavior control, In this example, there is no behavior control over P's outcomes (BCp=0).

²The procedure shown in Figure 4 is a simplified version of Kelley and Thibaut's (1978, pp.36-37) illustration.

Fate control and behavior control each reflect aspects of P's outcome dependence on O's choice of action. Fate control is O's non-contingent control over P's outcomes--that is, not contingent on P's action. Behavior control is O's contingent control over P's outcomes--that is, how P is affected by the status of his action in relation to O's action. Reflexive control is not a measure of dependence. It does, however, provide information about P and O's interdependence in how it compares with the other two components (FC and BC).

At this point, O's outcomes are added to the matrix. The total pattern of interdependence, displayed in Figure 5, relates how P and O get along in this domain.

		O's action	
		Clean	Not Clean
P's action	Clean	<div style="display: flex; justify-content: space-between;"> -5 +3 </div>	<div style="display: flex; justify-content: space-between;"> +3 -6 </div>
	Not Clean	<div style="display: flex; justify-content: space-between;"> +2 -5 </div>	<div style="display: flex; justify-content: space-between;"> +8 -1 </div>

$RC_p = -5$	$RC_o = +4.5$
$FC_p = +9$	$FC_o = +5.5$
$BC_p = 0$	$BC_o = -2.5$

Figure 5. The overall pattern of interdependence for P and O's apartment cleaning.

In reviewing the many different ways two persons can be interdependent, Kelley and Thibaut (1978) develop four dimensions of interdependence. Among these dimensions is one which concerns the degree of common versus conflicting interests among the pair.

Dimensions of outcome interdependence. In theory, the components of interdependence can take on an infinite number of patterns, but Kelley and Thibaut (1978) classify outcome matrices in terms of four dimensions:

- (a) mutuality of dependence: whether there is mutual dependence (to be referred to as interdependence) or unilateral dependence (to be referred to simply as dependence);
- (b) degree of dependence: the degree to which the one or two persons are dependent on their partners;
- (c) basis of dependence: whether the dependence in the relationship involves fate control, behavior control, or some combination of the two; and
- (d) correspondence of outcomes: degree to which the outcomes of the two persons are correspondent or noncorrespondent. (pp. 81-82)

The last dimension--correspondence of outcomes--is most central to the current analysis. It was suggested earlier, on page 6, that satisfying intimate relationships are characterized by motivational transformations that increase correspondence in a pair's outcomes. To fully comprehend this statement, the meaning of correspondent outcomes must be made clear.

First, however, it should be noted that, Kelley and Thibaut's other three dimensions (a, b, and c), suggest that intimate cohabiting pairs are likely to be characterized by (a) mutual interdependence of (b) high degree which is (c) based on both behavior control and fate control across many different activities.

The correspondence of outcomes. The correspondence of outcomes reflects a pair's commonality versus conflict of interest. In terms of the components of interdependence (RC, FC, and BC), outcome correspondence is reflected by how each actor's components concordantly or discordantly compare with the other actor's components.

For example, if P likes to clean (positive RC_p) and O prefers it if P cleans (positive FC_o), then RC_p and FC_o are said to be concordant. But if P does not like to clean (negative RC_p) while O likes it if P cleans (positive FC_o), then RC_p and FC_o are discordant.

Similarly, if both P and O like it if they engage in the same activity (positive BC_p and BC_o), or if both P and O like it if they engage in different activities (negative BC_p and BC_o), then BC_p and BC_o are concordant.³ But if P wants to engage in the same activity as O (positive BC_p) and O wants to engage in a different activity than P (negative BC_o), then BC_p and BC_o are discordant.

In outcome matrix terms, the correspondence of outcomes refers to a combined comparison of (a) RC_p and FC_o, (b) FC_p and RC_o, and (c) BC_p and BC_o. These components are concordant if they have the same sign (+ or -) and discordant if they have different signs.

In our apartment cleaning example, the P/O outcome matrix has a mixture of concordant and discordant components. P's reflexive control

³In referring to two partners' mutual behavior control, Kelley and Thibaut (1978) use the terms "correspondent" and "noncorrespondent." To avoid confusion with the overall dimension of outcome correspondence, I will here use the terms "concordant" and "discordant" for comparing mutual behavior control.

is discordant with O's fate control ($RC_p = -5$ and $FC_o = +4.5$), but O's reflexive control is concordant with P's fate control ($FC_p = +9$ and $RC_o = +5.5$). P's and O's respective behavior control components are neither concordant nor discordant ($BC_p = 0$ and $BC_o = -2.5$).

In practice, each participant's components can combine in both varying mixtures and varying degrees of concordance and discordance. At one end of the spectrum--completely correspondent outcomes--each person's influence over their own outcomes is identical to their influence over the other's outcomes ($RC_p = FC_o$; $FC_p = RC_o$), and both persons would like their behaviors to combine in the same fashion ($BC_p = BC_o$). At the other end of the spectrum--completely noncorrespondent outcomes--each person's influence over their own outcomes is exactly the opposite of their influence over the other's outcomes ($RC_p = -FC_o$; $FC_p = -RC_o$), and both persons would like their behaviors to combine in exactly opposite fashions ($BC_p = -BC_o$).

Kelley and Thibaut (1978) use these properties of concordance and discordance to develop an Index of Correspondence with the following four properties:

- (a) The index [is] +1.00 for a pure [behavior control] matrix in which the two person's outcomes covary in an identical manner and -1.00 for one in which they vary in an exact inverse manner...
- (b) It must take intermediate values for intermediate patterns of [behavior control]...
- (c) It must be .00 for pure [fate control or reflexive control] matrices, in which the two sets of outcomes bear no relation to each other...
- (d) For mixtures of [concordant RC, FC, and BC] the index should move from +1.00 to .00 [as RC and/or FC increase relative to BC]. Similarly, for mixtures of [discordant RC, FC, and BC] the index should move from -1.00 to .00 [as RC and FC increase relative to BC]. (p. 117).

The fourth property is slightly misleading as stated above. Kelley and Thibaut seem to imply the the Index of Correspondence can be close to +1.00 or -1.00 only for matrices with high behavior control components. An examination of the computational form of the Index of Correspondence (Figure 6) shows that, even if $BC_p=BC_o=0$, the index can take on a value of +1.00 if $RC_p=FC_o$ and $FC_p=RC_o$. Similarly, the index is -1.00 if $RC_p=-FC_o$ and $FC_p=-RC_o$.

$$IC = \frac{2(RC_pFC_o+FC_pRC_o+BC_pBC_o)}{RC_p^2+FC_o^2+FC_p^2+RC_o^2+BC_p^2+BC_o^2}$$

Figure 6. The computational form for the Index of Correspondence (Kelley & Thibaut, 1978, p. 121).

Note that this index resembles the Pearson product-moment correlation coefficient, and may, in fact, be viewed as a correlation between partners' outcomes. As Kelley and Thibaut state, this index "specifies the extent to which [pair members'] interests are the same or different and implies how smooth or conflicting their interaction will be" (p. 117). In the apartment cleaning example, P and O's Index of Correspondence is +.16, a rather low degree of correspondence.

The outcome matrix, the components of interdependence, and the dimensions of interdependence are the fundamental concepts of Kelley and Thibaut's analysis of outcome matrices. These concepts are reflected in Kelley's (1979) first basic element of personal relationships: "Interdependence in the consequences of specific

behaviors with both commonality and conflict of interest" (p. 3). The second basic element in Kelley's model is: "Interaction that is responsive to one another's outcomes" (p. 4).

The transformation of motivation

Kelley (1979) argues that "[i]t is a basic fact of social life that people are not only responsive to their own outcomes but also to the outcomes of other people" (p. 58). This "fact" is most noticeable in people's intimate relationships.

Kelley and Thibaut (1978) conceptualize responsiveness to another's outcomes as a transformation from one outcome matrix to another.

Psychologically, [matrix transformations] are the ways in which a person can reevaluate or reconceptualize the given matrix. In doing so, he no longer responds to his own outcomes in each cell. Instead, he views these outcomes in the contexts provided by the past and future actions and interactions within the relationship. (p. 139)

Given and effective matrices. Central to this transformation concept are the given matrix and the effective matrix. Kelley and Thibaut distinguish between these two matrices as follows:

The given matrix is determined by environmental factors and institutional arrangements in combination with the personal factors (needs, skills, etc.). The matrix is "given" in the sense that the behavioral choices and the outcomes are strongly under the control of factors external to the interdependence relationship itself...

The effective matrix, as we now construe it, summarizes the sets of behavior outcome contingencies that are operative at the time the behavior occurs. (1978, p.16)

Kelley and Thibaut reason that "by responding to aspects of pattern in the given matrix the actors transform it into a new matrix, the effective one, which is then closely linked to their behavior" (p. 17).

Consider P and O's apartment cleaning activities. Suppose that the matrix presented earlier is the pair's given matrix; that is, P and O's behavior outcome contingencies based only on a consideration of their own personal interests in the situation at hand.

When P then takes O's feelings into account he may, in effect, transform his own outcomes. For example, P comes to dislike cleaning less as he realizes that by cleaning he will make O happy. He also figures that he generally enjoys doing things with O, even if it means cleaning the apartment. O, in turn, feels that she also likes doing things with P, even though she feels that it is usually best if only one person does the cleaning.

P and O therefore transform the motivation that guides their evaluations of the apartment cleaning events. Whereas they initially evaluate their outcomes on the basis of self-interest, they subsequently reevaluate their outcomes on the basis of their joint interest. Thus the effective matrix in Figure 7 is characterized by more correspondent outcomes (the index of correspondence has increased from +.16 to +.61). This effective matrix implies that, circumstances permitting, P and O will decide to clean the apartment together.

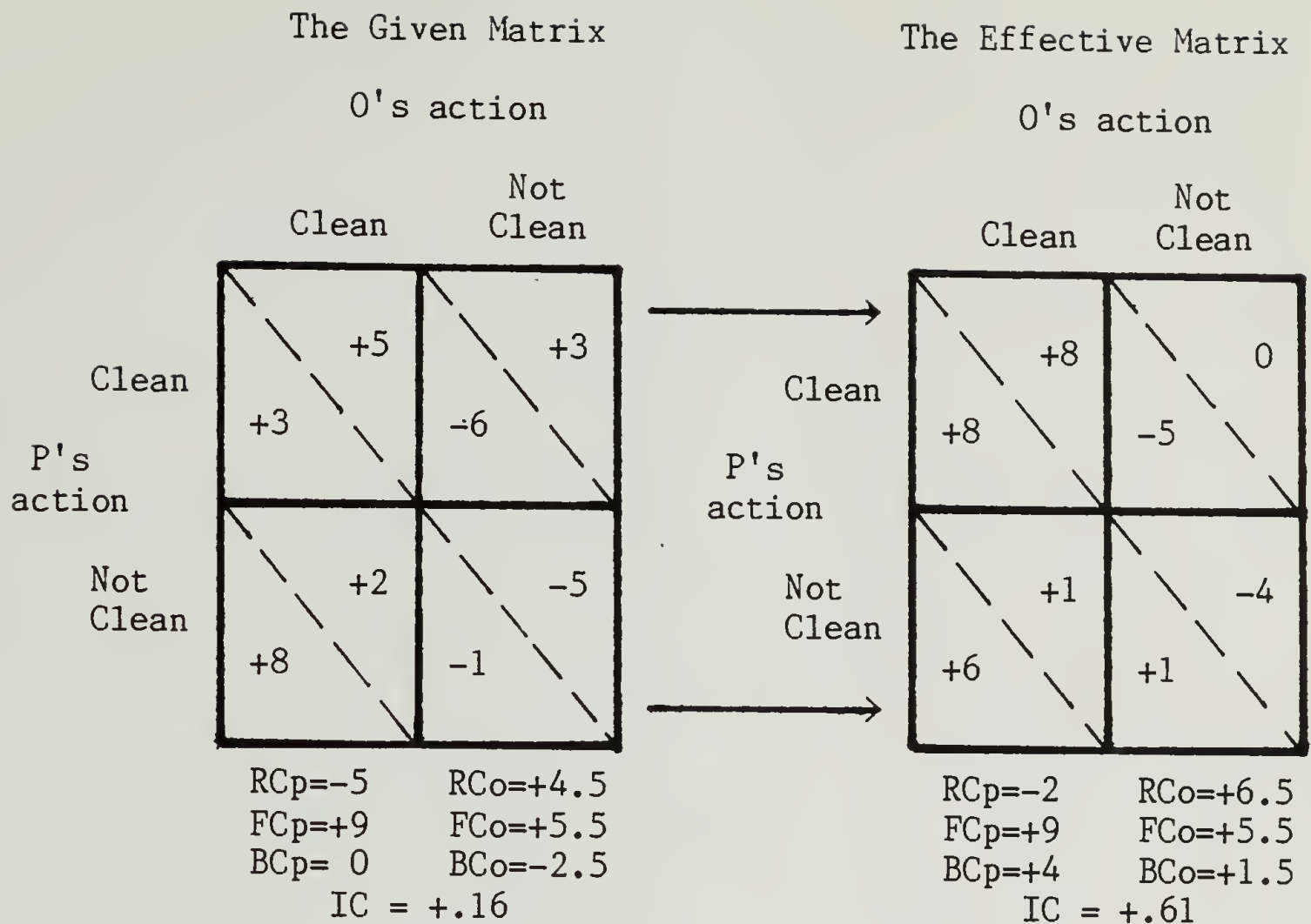


Figure 7. The transformation of motivation in P and O's apartment cleaning.

Types of transformations. The transformation illustrated above is only one way in which P and O could have resolved the slightly conflicting interests in their given matrix. Kelley and Thibaut (1978) label this type of transformation an outcome transformation: P and O evaluate the events differently in light of the partner's interests, thereby transforming their given outcome values to a new set of effective outcome values.

Kelley and Thibaut describe altogether four possible motivational orientations for transforming one's outcomes in the given matrix (cf. McClintock, 1972): (1) maximizing the other's outcomes--commonly referred to as altruism, (2) maximizing joint outcomes--the kind of

"we-feeling" that we expect to find among intimate couples, (3) minimizing the difference between outcomes--an orientation that we might find among intimate pair members playing a competitive game, and (4) maximizing the difference between outcomes--a competitive orientation that might be dysfunctional for intimate relationships.

Each of the above orientations has its corresponding implications for the components of interdependence. Kelley and Thibaut illustrate such implications with the following example of maximizing the child's outcomes in a parent-child relationship.

... if I totally identify with my child and his outcomes become my own, then ways in which I exercise fate control over him become ways in which I affect my own outcomes, and ways in which he exercised reflexive control over himself now become ways in which he exercises fate control over me. (1978, p. 141)

Outcome transformations are the major focus of the current analysis, but Kelley and Thibaut also identified two other types of transformations. A transpositional transformation occurs, for example, when P "recogniz[ing] the importance of the timing of events in any interaction" takes the initiative and commits himself to an action (e.g., tells O that he is going to clean the apartment), thereby "effectively operating within a different matrix than the given one--a matrix within which the choices for [O] are redefined and in which the values reflect a transposition of those in the given matrix" (pp.139-140).

A sequential transformation occurs when P and O consider "past and future interchanges ... [adopting] a policy of varying [their] choices over successive occasions" (e.g., taking turns cleaning the apartment).

In doing so, the pair defines a new matrix "in which alternatives are various sequential rules and outcomes are the long run (or average) consequences of their various combinations" (p. 140).

The evocation of transformations. According to Kelley and Thibaut, pair members may transform their motivations for a variety of reasons. It is useful, however, to distinguish two contrasting causal factors: (a) situationally induced transformations, and (b) dispositionally induced transformations.

Situationally induced transformations may be seen as "tactical transformations made only briefly or intermittently for instrumental purposes" (Kelley, 1979, p. 85). Driving on the wrong side of the road to avoid an oncoming car is such a transformation. Whereas the rules of the road normally motivate a driver to drive on the right, an oncoming car can force a transformation.

Dispositionally induced transformations, or transformational tendencies, reflect the "consistent patterning of transformations [by a person] suggestive of stable causes governing the transformation process" (Kelley, 1979, p. 85). As an example, P's deep caring for O will consistently motivate him to take O's feelings into account. Kelley (1979) argues that these tendencies are essential for personal relationships.

In the analysis of close personal relationships, we must focus on certain of these transformations, primarily the prosocial ones, and ... look at some of the dispositional controls of transformations--at what are generally referred to as interpersonal attitudes, traits, and values. (p. 84)

Transformational tendencies as interpersonal dispositions

It will be remembered that the outcome values in a given matrix were said to be determined by the preferences and aversions pair members bring to the situation. The correspondence of outcomes in the given matrix then reflects the compatibility of participants' interests, needs, and abilities. If these given outcomes are correspondent, then pair members are likely to be concerned that the preferences and aversions behind them are stable.

Each will want to know that the outcome correspondence can be expected to continue because its antecedents are stable. (Kelley, 1979, p. 110)

Of even greater concern to intimate partners is the manner in which they deal with instances of noncorrespondence--that is, how do intimate pairs resolve conflicts of interest?

To the degree their outcomes in the given matrix are noncorrespondent, each person will be concerned about what transformation the partner can be expected dependently to make ... Thus given some conflict of interest, the important questions concern the partner's dispositions to respond to the given matrix in ways that are considerate of one's own outcomes. (p. 110-111)

Kelley labels such transformational tendencies "interpersonal dispositions," and argues that they are of "greatest importance for personal relationships" (p. 110).

Kelley's (1979) third basic element of personal relationships--the attribution of interaction events to dispositions--emphasizes participants' evaluations of their partner's transformation tendencies. The current analysis shifts the emphasis to the researcher's assessment of transformations. The next section considers the consequences of such a shift in emphasis.

as Kelley suggests, unless the "given" versus "effective" distinction is meant as a conceptual heuristic rather than a description of real underlying process.

It will be remembered that Kelley's model focuses on how pair members perceive transformations in the partner.

The participants scanning of behavior for its responsiveness to the partner's versus the actor's interests, and their explanation of this responsiveness in terms of stable dispositions constitute important processes that control behavior and affect in the relationship, are based on objective structures of the relationship, and give rise to other structures. (p. 9)

It is possible then that the transformation process, as Kelley and Thibaut describe it, is meant as both a conceptual heuristic and an accounting of how pair members subjectively perceive other's responsiveness. Kelley argues, however, that the transformation process that he and Thibaut describe is the actual process that occurs on the part of the transforming partner.

Are we to take the participants' assumptions in [the model] as reflecting a subjective reality or "story" that they typically develop about their relationship but has little to do with the hard realities of their interaction? Or are we to take them as reflecting the real, underlying structure of these relationships and therefore indicative of how we should conceptualize it? ... In short I have chose to take [the model] as indicating how the personal relationship should be conceptualized. (pp. 7-9)

The transformation process they describe stipulates that P and O first evaluate a (given) situation in terms of their own self-interest (without considering the other's interest), and then transform their outcomes if there is any conflict in the given situation. Over time, P and O may develop transformational tendencies--or rules for how they will take the other's feelings into account.

A Critique of Concepts

Kelley and Thibaut's analysis of outcome interdependence implies a specific method for assessing outcome transformations in pairs: we need only assess the given and effective matrices for the pair, and compare the change in outcome values from one to the other. In attempting to study the transformation process, however, several serious difficulties were encountered. The first difficulty concerned how to elicit pair members' "given" versus "effective" outcomes. In attempting to cope with this problem yet another difficulty was encountered. It was found that Kelley and Thibaut's 'analysis of variance' analogy for deriving the components was conceptually misleading. Furthermore, they imply that components of outcome interdependence derived from fundamentally different matrices are equivalent. This was also found to be problematic.

"Given" and "effective matrices as a heuristic

Kelley (1979) used the following strategy to assess pair members' given and effective outcomes:

Ninety six students rated their own satisfaction--dissatisfaction with common events occurring in their relationship with persons of the opposite sex. These ratings were made for two cases: Case I, in which partner has no preferences about the possible events, and Case II, in which the partner has clear preferences. Case I permits us to estimate the person's own given outcomes and Case II permits us to see how his evaluations are affected by the partner's outcomes. (p. 63)

It appears, however, that Case I (partner has no preferences) and Case II (partner has clear preferences) are examples of two different "given" situations, and not of a "given" and an "effective" situation

This implies, however, that P and O maintain the same given outcomes from one time to the next, regardless of whether they have common or conflicting goals. However, the transformation of personal outcome preferences is seen as a central feature of interpersonal interaction in the writings of several other theorists (e.g. Huesmann & Levinger, 1976; Levinger & Snoek, 1972; Moscovici, 1972). It is very easy to think of activities towards which we have changed our personal attitudes as a result of what others close to us think about these activities. Our preferences for an activity change as a result of the good experiences we have when engaging in the activity with an intimate partner. If Kelley and Thibaut's transformation of motivation concept is taken literally, however, we cannot account for this very important feature of interpersonal interaction.

It is most interesting to note that Kelley and Thibaut developed the transformation of motivation concept at least partly in response to this very criticism. When Thibaut and Kelley (1959) first introduced the analysis of dyadic outcome matrices, their work was labelled a "social exchange theory" (cf. Chadwick-Jones, 1976; Gergen, 1969; Simpson, 1976). One criticism lodged against their exchange concepts concerned the static treatment of interpersonal interaction. Huesmann and Levinger (1976) state this point most clearly:

Conceptions of social exchange based on Thibaut's and Kelley's suggestion have neglected to account for the transformation of personal outcome preferences through social interaction or group membership. (p. 194)

In their subsequent volume, Kelley and Thibaut (1978) stated that their intention was to develop concepts of interdependence rather than

exchange. They convincingly argue that in advancing the theory of the effective matrix, and the transformation of motivation, they have shifted the focus from principles of exchange to principles of interdependence. In a more recent comment on their work, Levinger (1981) stated:

Cognitive analyses of interaction situations have often been rather static ... Recently, Kelley (1979; Kelley and Thibaut, 1978) has emphasized that actors transform the payoffs from a "given" outcome matrix into an "effective" outcome matrix which governs their actual behavior toward the other; presumably, their transformation of payoff values becomes increasingly joint or cooperative as the relationship becomes closer. (p. 520-521)

In spite of this apparent advance, we maintain that Kelley and Thibaut have yet to account for changes in "given" outcome preferences through personal interaction. This discrepancy can be traced to the origin of many of their concepts as attempts to account for observations of interpersonal interaction elicited through artificially constructed vignettes.

Chadwick-Jones (1976) questioned the applicability of Thibaut and Kelley's (1959) concepts to 'real-life' interaction.

The work carried out by Thibaut and Kelley themselves, or supervised by them, or in some way influenced by them, has focused mainly on exploring the social process of exchange in the course of laboratory games, tasks, bargaining, or negotiating. (p. 67)

One such "laboratory game"--the Prisoner's Dilemma Game or PDG (Luce & Raiffa, 1957)--is used here to illustrate why (we think) Kelley and Thibaut describe the transformation of motivation as a real underlying process in close relationships. One standard form of the PDG is as follows:

Imagine that you and [your partner] are seated in separate rooms. In front of each of you are two buttons, one black and the other red. Your task is simply to push one of these buttons ... If you both push black, you will each win \$1.00; if you both push red you will each lose \$1.00; and if one of you pushes red while the other pushes black, the one who pressed the red button will win \$2.00 while the one who pushed the black button will lose \$2.00. (Raven & Ruben, 1976, p. 166)

Figure 8 illustrates that P and O might evaluate their outcomes in terms of how much money the pair stands to gain. Therefore, they have transformed the outcomes given by the experimenter into a set of outcomes that are effective in their relationship. Since they were unaware of the given outcomes until they were placed in this artificial situation, they could not transform until this time. And, if the experimenter continues to present them with this same matrix, their given outcomes will remain static.

		The Given Matrix				The Effective Matrix	
		O's action				O's action	
		Pushes Black	Pushes Red			Pushes Black	Pushes Red
P's action	Pushes Black	$+\$1$ $+\$1$	$+\$2$ $-\$2$	→	$+\$2$ $+\$2$	0 0	
	Pushes Red	$-\$2$ $+\$2$	$-\$1$ $-\$1$	→	0 0	$-\$2$ $-\$2$	

Maximize joint outcomes

Figure 8. P and O's given and effective outcomes for the Prisoner's Dilemma Game.

In the 'real world', however, pair members do not usually have direct access to the each other's potential outcomes (especially when considering subjective outcomes--ratings of satisfaction--rather than objective outcomes--as in dollars). Nor are P and O likely to know of the precise contingencies between their outcomes. Thus, it seems inaccurate to take the transformation process, as Kelley and Thibaut describe it, as the process underlying interpersonal interaction.

An alternative conceptualization for the transformation process is presented in a later section. The associations among each partner's own components of interdependence (i.e., RC_p , FC_p , and BC_p) play an integral role in this reconceptualization. Herein lies the next difficulty with Kelley and Thibaut's analysis.

Analysis of variance as a misleading analogy

The procedure by which Kelley and Thibaut derive the components of interdependence from the outcome matrix was detailed earlier. The reader will remember that they based their method on the logic of the statistical procedure known as analysis of variance. Kelley and Thibaut anticipated several objections to their use of this technique.

One possible reason why the application of analysis of variance to interdependence matrices has not been fully developed ... is that it requires making strong assumptions about the nature of the measurement scale underlying the values of the matrix. (p. 50)

They go on to argue that a productive theoretical analysis can be carried out "by proceeding as if such assumptions were generally warranted" (p. 50). This is valid for the assumptions about measurement scaling to which they speak, but there is a more serious

assumption that they do not appear to recognize.

The orthogonality problem. One property of the analysis of variance (ANOVA) procedure is that it produces orthogonal (i.e., statistically independent) variance components. In fact, it cannot be used otherwise (i.e., if one does not expect the components to be necessarily uncorrelated). It is argued later that the components of interdependence are likely to be correlated, but for the moment it is assumed that they may be orthogonal.

As with all statistical procedures, it is assumed that a construct (e.g. reflexive control) cannot be directly measured. What can be obtained is a sample of values that indicate the construct but that also include some random error as well. For the ANOVA procedure to yield components that are unbiased estimates of the 'true' construct's value, several assumptions must be met. In addition to the assumptions about measurement scaling (mentioned by Kelley and Thibaut), it is also required that a specific pattern of associations exist between the sets of values in the various cells of the matrix: either (a) the values in each cell must be independent of the values in each other cell, or (b) the statistical association between the values in any two cells must be equal to the association between any other two cells (a condition known as homogeneity of covariance).

The reader may note that an ANOVA matrix contains a set of values in each cell, but the outcome matrix has only one value in each cell. This is, in fact, one reason why the ANOVA analogy is conceptually misleading. An analysis of variance can, then, be performed only with

an aggregate of outcome matrices. Outcome matrices can be aggregated by taking repeated ratings from P over various occasions of his interaction with O, or by placing the values for several different matrices, each representing a different activity, into a single ANOVA matrix.

In either case, it is virtually impossible for the values in each cell to be statistically independent of the values in each other cell--for each cell contains the same person's subjective ratings for events in his interaction with the same other person. That the condition of equal pairwise covariances between cells is not met is less obvious. There is, however, no a priori reason to believe that such a condition is met. A theoretical justification for correlated components will be provided later. In addition, the correlations among the components will be empirically examined.

"Between" person versus "within" person. To further illustrate how misleading the ANOVA analogy is, consider the manner in which Kelley (1979) himself uses this method in his very first illustration of the outcome matrix (pp. 24-29). Kelley takes data collected from 100 college couples and performs two separate ANOVAs; one for the females' ratings, and one for the males' ratings. Kelley then talks about reflexive control, fate control, and behavior control for the typical male and the typical female of his sample. But Kelley and Thibaut's concepts are supposed to inform us about patterns in specific relationships--they imply all along that we can hope to understand the behavior of particular individuals involved in a particular

relationship. Why then would we want to speak of reflexive control in the typical male or female in a sample when we think that each relationship is uniquely characterized by such patterns of interdependence?

It is more appropriate to think of the components of interdependence as orthogonal linear combinations of a set of four correlated values. The linear combinations are said to be orthogonal because the vector product between each pair of rows in the matrix is equal to zero (e.g., in Figure 9, $\text{row1} \cdot \text{row2} = [(\frac{1}{2})(\frac{1}{2}) + (\frac{1}{2})(-\frac{1}{2}) + (-\frac{1}{2})(\frac{1}{2}) + (-\frac{1}{2})(-\frac{1}{2})] = [\frac{1}{4} - \frac{1}{4} - \frac{1}{4} + \frac{1}{4}] = 0$).

$$\begin{array}{l}
 \text{P's components} = \\
 \left[\begin{array}{c} \text{RCp} \\ \text{FCp} \\ \text{BCp} \end{array} \right]
 \end{array}
 =
 \begin{array}{l}
 \text{orthogonal linear} \\
 \text{combinations} \\
 \left[\begin{array}{cccc}
 +\frac{1}{2} & +\frac{1}{2} & -\frac{1}{2} & -\frac{1}{2} \\
 +\frac{1}{2} & -\frac{1}{2} & +\frac{1}{2} & -\frac{1}{2} \\
 +\frac{1}{2} & -\frac{1}{2} & -\frac{1}{2} & +\frac{1}{2}
 \end{array} \right]
 \end{array}
 \times
 \begin{array}{l}
 \text{P's expected outcomes} \\
 \left[\begin{array}{l}
 \text{Both clean} \\
 \text{P does other things,} \\
 \text{and O cleans} \\
 \text{P cleans, and O does} \\
 \text{other things} \\
 \text{Neither P nor O clean} \\
 \text{both do other things}
 \end{array} \right]
 \end{array}$$

Figure 9. A multivariate conception of P's components of interdependence for apartment cleaning.

In order for the derived components then to be orthogonal, the same condition must be satisfied as in the ANOVA framework (uncorrelated cells or homogeneity of variance).⁴ The advantage

⁴The reader familiar with multivariate statistical techniques may note that deriving three orthogonal variables from four correlated variables is very unlikely.

to conceptualizing the analysis on this fashion is that it implies a 'within-person' analysis; to test for component orthogonality one would consider the internal correlation of P's components across different activities or different occasions of the same activity. Furthermore, this multivariate framework does not require orthogonal interdependence components for it to be an unbiased procedure.

The implications of non-orthogonal components. The possibility of correlated components is not overly problematic in the current analysis. It is argued later, in fact, that the correlation among a participant's components is an indication of transformation. However, component non-orthogonality does have several implications for Kelley and Thibaut's conceptual analysis.

Earlier in this thesis, the components were explained as arising out of the outcome matrix. Kelley and Thibaut (1978) also build outcome matrices by adding component values to the appropriate cells of the matrix. Without going into further detail, it should be noted that one cannot simply add the components together if they are correlated. A correlation indicates that there is some overlap between the variables. Adding two correlated variables together twice expresses the overlap between them.

Kelley and Thibaut also propose an Index of Dependence as follows:

In a 2x2 matrix, the variance in [P]'s outcomes under each of the three sources of control is proportional, respectively, to RC[p], FC[p], and BC[p]. From this, the proportion of the total variance in [P]'s outcomes controlled wholly or partly by the partner can be calculated: $Dep[p] = (FC[p] + BC[p]) / (RC[p] + FC[p] + BC[p])$. (1978, p.114)

However, if the components are intercorrelated this index is inappropriate in that it includes information that is redundant in as yet unknown ways.

The final criticism of Kelley and Thibaut's concepts concerns the use of the same technique and application of the same terms (RC, FC, and BC) to components derived from differently composed matrices.

The non-equivalence of components derived from differently composed matrices

Given that the components are linear combinations of the matrix cell values, the association among such components are then a direct function of the associations among the original cell values. Consider, however, the differing nature of the cells in the apartment cleaning and movie going matrices.

In the cleaning matrix, P evaluates events in which he and/or O clean (or neither cleans). In the movie going matrix, P evaluates events in which he and/or O go to his own or O's preferred movie.

Next consider how the diagonal pairs of cells might be associated in these two differing matrices. In the upper left and lower right cells of the cleaning matrix, P and O's behaviors correspond in that either they both clean or neither one cleans. But if neither one cleans, it does not necessarily follow that P and O go off and do the same 'other things' together. How might these two cells be associated? If having a clean apartment is important to P, then it is likely that he will report a high outcome for the "both clean" cell and a low

outcome for the "neither cleans" cell. If P does not like to clean then his outcomes for the two cells would be the reverse. In either case there is a negative association between the two cells. It is also unlikely that P's desire to do things with O would affect this association; for he is not necessarily doing something with O in the lower right cell.

In the upper left and lower right cells of the movie going matrix, P and O's behavior correspond in a different way; in either event they engage in the same activity together. Here it seems likely that P would see both cells as a chance to go to the movies with O. Therefore both cells might elicit high outcomes for P; that is, the cells are positively associated.

It seems rather unlikely then that the components derived from these two matrices would have the same associational properties. Furthermore, the two sets of components seem to indicate very different aspects of P's dependence on O. The exact nature of such differences is not relevant to the current analysis. But, given that important differences are likely to exist, we will stick with only one form of combining activities, and consistently apply these same combinations to different activities.

In light of all the above mentioned difficulties, an alternative method for assessing components of interdependence is proposed. The technique (detailed in Chapter II) directly elicits pair members' components for various activities in their relationship. The events to be considered are similar but not identical to those in the cleaning

matrix. This format is easily applied to any type of activity. Furthermore, it does not automatically include a conflict of interest (as in the movie going matrix). Nor does it include such an unlikely event as when P engages in O's preferred activity while O engages in P's preferred activity.

Summary

Three criticisms are here advanced against Kelley and Thibaut's (1978) concepts. First, it is argued that the transformation of motivation, as they describe it, does not account for an important aspect of transformation in intimate relationships: changes in pair members personal outcome preferences. Second, the ANOVA analogy for deriving interdependence components is conceptually misleading. It implies that the components of interdependence are orthogonal. This is seen as unlikely on both theoretical grounds and statistical grounds. Third, the use of the same terms to describe components derived from differently composed matrices obscures important psychological differences between such components.

In our empirical analysis these same issues are addressed, but in reverse order. First the proposed (vector) method for assessing components of interdependence is compared with Kelley and Thibaut's matrix method. After establishing measures for the components of interdependence, orthogonality among the components can be tested (it is expected that they are not orthogonal). An empirical analysis of the transformation concepts then follows.

In addition to the above criticisms, the reader should note that Kelley and Thibaut use the term "control" in a restricted sense. Whereas control usually refers to one's ability to manipulate objects, it is here used in reference to subjective expected outcomes. Control over one's outcomes relates to changes in the degree of satisfaction to be derived from engaging in an event; it does not, however, relate to one's ability to engage in the event.

Next a refinement to the transformation concept is offered, followed by a discussion of how to assess such transformations and outcome interdependence in intimate couples.

Refining the Transformation Concept

Kelley and Thibaut (1978; Kelley 1979) propose that pair members confront a given situation and then transform their outcomes in response to an interdependent other for whom they care. It is argued here that long-term intimate pair member P confronts a typical situation with a preconceived notion of how O feels about the possible interaction events, and that P is further predisposed towards taking his perception of O's feelings into account in deciding on his own action.

outcome for the "neither cleans" cell. If P does not like to clean then his outcomes for the two cells would be the reverse. In either case there is a negative association between the two cells. It is also unlikely that P's desire to do things with O would affect this association; for he is not necessarily doing something with O in the lower right cell.

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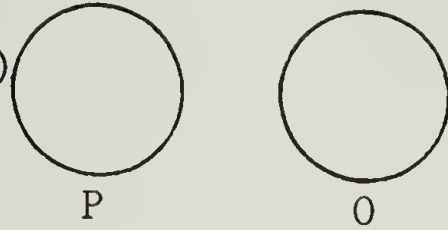
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Levels of Relationship

Positive Transitions

0. Zero Contact

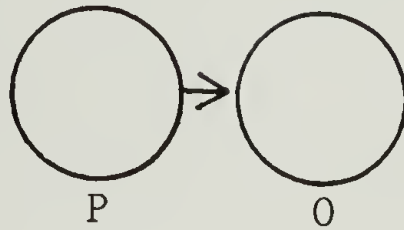
(two unrelated persons)



0→1. Probability of Meeting

1. Awareness

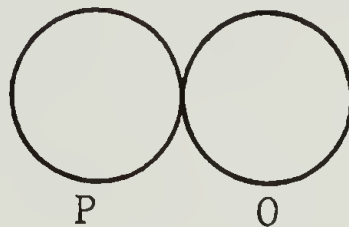
(unilateral attitudes or impressions; no interaction)



1→2. Probability of Interaction

2. Surface Contact

(bilateral attitudes; some interaction)

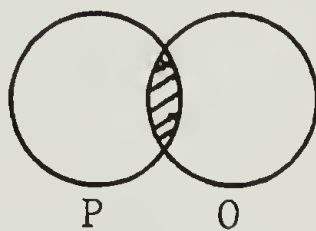


2→3. Probability of Mutuality

3. Mutuality (a continuum)

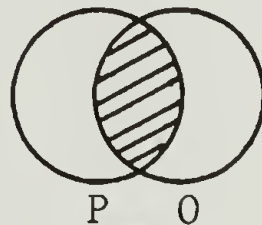
3.1 Minor Intersection

·
·
·



3.2 Major Intersection

·
·
·



3.n Total Unity

(the fantastic extreme)



Figure 10. Levels of relationship (from Levinger & Snoek, 1972, p. 5, Figure 1)

The transformation of motivation, as Kelley and Thibaut describe it, is likely to occur early in the formation of a relationship (Level 2 in Figure 10). At this time, participants are probably not very aware of each other's preferences and aversion, but they may be motivated to accommodate to each other if they want the relationship to progress. Therefore, when such pair members discover each other's interests, they may transform their own outcome preferences if their given outcomes do not correspond.

After a relationship has progressed to Level 3 though, partners are likely to have a shared knowledge of each other's personal preferences and aversions, and have developed tendencies to act with the partner's interests in mind. In other words, intimates know their partner's interests and desires, whether similar or dissimilar to their own, and account for them even before confronting a typical situation.

Thus it becomes difficult to distinguish between P's "given" and "effective" outcomes, because O's own preferences—made known to P in previous instances--will already have influenced P's own expected outcomes before the given matrix can be assessed.

Thus the transformation of disposition accounts for (a) P and O's responsiveness to each other's outcomes, and (b) the shared knowledge that P and O have of each other's outcomes. In addition, we can further understand how P and O's personal likes and dislikes may change in the process.

As P's disposition transforms, he is likely to find it increasingly difficult to separate O's interests from his own.

Levinger and Snoek point out:

Self disclosure leading to shared knowledge between equals is likely to be a reciprocal process; thus it makes possible the development of joint views, joint goals, and joint decisions. Given that, the partners will gradually develop "we-feeling". (pp. 8-9).

Thus, it is likely that many of P's original preferences will change toward newly formed joint preferences.

Perceiving the partner's outcomes

It was argued earlier that P and O do not have direct knowledge of the other's preferences and aversions. No matter how intimate the two are, there will still be certain self-biases in their perception of the other's feelings.

Kelley (1979) reports on some outcome matrix data which demonstrates this bias. Kelley asked pair members to rate "not only their own satisfaction with the four possible events in each episode ... but also the degree of satisfaction they estimated their partners would experience in each episode". Kelley subsequently reports that "[t]he evaluations imputed to the partner ... are quite similar to those reported for the self" (p. 86).

Levinger and Breedlove (1966) found that mutually satisfied pair members overestimated the similarity of their partner's attitudes to their own attitudes more than did less satisfied pair members.

Berscheid and Walster (1978) interpret this bias as a means of conflict avoidance.

Assumed similarity may be greater than actual similarity not only for reasons of cognitive consistency but also because, in the interest of harmony, husbands and wives tend to emphasize their

similarities and to conceal or to avoid areas of disagreement.
(p. 62)

The transformation of disposition suggests that this bias is an unavoidable consequence of increased intimacy. As P and O transform, they internalize the other's actions as part of their own experience. In developing this "we-feeling", they perceive a certain unity between them. This sense of unity may then account for the bias in assumed attitude similarity.

Assessing Transformations in Intimate Pairs

Assessing the transformation of disposition

The bias of satisfied partners towards perceiving attitude and outcome similarity suggests an interesting method for assessing transformed dispositions. Consider activities which people generally find enjoyable--such as leisure activities. We may expect that a "transformed" P will feel just as good if either he or O were to engage in such activities. That is, even though he does not gain any direct benefits from O's action, he can vicariously experience her positive outcomes; her pleasure gives him pleasure. If P were not so "transformed", O's benefits would not affect him very much. Therefore, the similarity between P's own influence over his own outcomes (RCp) and O's influence over his own outcomes (FCp) will reflect the degree to which P has transformed his disposition.

Again, this is only true for O's actions where P does not gain any direct benefits. When O performs a task, she is likely to produce

direct benefits for P (e.g., a clean apartment). These direct benefits then combine with P's vicarious experience of O's task actions to form O's overall influence over P's outcomes (FCp) for the task. Therefore, the similarity between P's own influence over his own outcomes and O's direct influence over his outcomes is not a direct reflection of the degree to which his disposition has transformed.

Assessing the transformation of motivation

It is possible that motivational transformation, as Kelley and Thibaut describe it, does occur among intimate partners. Pair members are likely to confront novel situations, where they are unsure of their partner's interests. They then look for clues to the partner's interest and can transform appropriately. In the current analysis, though, we are concerned with day-to-day activities where such novelty is unlikely.

It is also possible, though, that members of less intimate relationships transform their motivation on a time-to-time basis rather than actually transform their long-term dispositions. Such pair members may view a typical situation first in terms of their self-interest and then respond to how their actions stand to affect their partner; taking account of the other's feelings is not built into their behavioral repertoire. Furthermore, assessing motivational transformation will allow for an empirical comparison with dispositional transformation.

To assess given outcomes, pair members can be asked about how they feel when engaging in various activities when their partner is away and

will not know of their actions or the consequences of such actions. Further explanation of this procedure can be found in Chapter II.

Assessing both types of transformations relies on a prior ability to assess outcome interdependence. A strategy for doing so is now offered.

Generalizing outcome interdependence within domains of activities

Kelley and Thibaut's analysis of outcome interdependence is geared towards exploring P and O's interdependence for a single activity (e.g., apartment cleaning). But as Kelley (1979) states:

Most real-life relationships probably involve both FC and BC as the bases of their interdependence, these being separately operative in different domains of their interaction or in combination ... in other domains. (p. 53)

The outcome analysis would be very tedious, however, if we had to assess P and O's interdependence in each of the many diverse activities for which they are likely to be interdependent.

There is evidence though, that there are several domains of activities within which intimate pairs develop general patterns of interdependence. Herbst (1952), for example, differentiated the "behavioral field" of the family into four "regions":

- (i) Household Duties ...
- (ii) Child Control and Care ...
- (iii) Social Activities ...
- (iv) Economic Activities ... (p. 11)

Based on data from 86 Australian families, Herbst further subdivided the first region into (a) Husband's household duties, (b) Wife's household duties, and (c) Common household duties. Herbst found

that these regions were very useful distinctions for his sample.

The concept of regions was validated by testing the hypothesis that items classified in terms of similar content would also have a similar type of interaction pattern, differing consistently in that respect from items in other regions. (p. 29)

Bales and Slater (1955) distinguished between the task specialist and social-emotional specialist in five-man problem solving groups.

Levinger (1964) subsequently showed that "in the marriage group per se both spouses are task specialists and neither spouse is a social-emotional specialist" (p. 435). Levinger found that activities in the social-emotional domain were mutual and reciprocal. In addition "these husbands and wives would place a considerably higher value on social-emotional than on task satisfactions in their marriage" (p. 443)

Task versus leisure activities. The current analysis focuses on how patterns of outcome interdependence may generalize within the task and within the leisure domains, but not necessarily between them. Child care activities are not relevant to the current sample of childless couples, and economic activities often extend beyond the home lives of intimate couples.

The analysis of outcome interdependence requires activities that P and O can engage in either separately or jointly. For this reason, the socio-emotional activities used by Levinger (1964) are inappropriate (e.g., kissing, giving praise, or discussing the day's events). Therefore, only a special class of social-emotional activities are used—that is, leisure activities, including reading, watching TV, listening to music, and going to movies. These activities are not

necessarily social, but are fundamentally different from task activities.

Leisure activities are intrinsically satisfying: they are engaged for the sake of engaging in them. Furthermore, as was discussed earlier, leisure activities provide a measure of transformed disposition.

Task activities, in contrast, are goal oriented: "Such behavior is not necessarily satisfying in itself, but it is a means toward attaining a group goal" (Levinger, 1964, p.434). In addition, task activities can be delegated among members of the group.

We have thus set forth several refinements to Kelley and Thibaut's transformation concept as well as a strategy for assessing outcome interdependence and interpersonal transformations in intimate pairs. We will now consider some of the implications of this perspective for the home lives of married and unmarried cohabiting couples.

Married versus Unmarried Cohabitation

The term "cohabitation" is commonly used to refer to intimate partners who live together without the sanction of marriage. In a recent review of the literature, Newcomb (1981) points out:

...cohabitation is not a singular entity, but rather consists of a heterogeneous collection of relationship types living together in a sexual relationship without being married. (p. 133)

Regarding married couples, Cuber and Haroff (1965) reached a similar conclusion.

Even where the judgement of conventional marital "success" must be rendered ... the success is often accomplished by following life styles of startlingly varied designs. (pp. 193-194)

It is possible, then, that the differences between married and unmarried cohabitants are far less significant than the differences among couples within either group.

There has been, however, a continuing interest in the study of unmarried cohabitation as a type of relationship. Much of this interest stems from the increasing prevalence of this relationship form.

In reviewing U.S. census data, Glick and Spanier (1980) reported that, although the absolute proportion is still low, there has been a dramatic increase in unmarried cohabitant households in the last several years. "An estimated 1.8 percent of all couples living together in 1975, and 2.3 percent in 1978, were unmarried" (p. 19). They further report that from 1970 to 1980, the number of unmarried cohabiting couples increased by 76 percent. And, in the year 1977-78 alone, the proportion increased by 19 percent.

Unmarried cohabitation has been particularly prevalent on and near college campuses. On the basis of several studies, Macklin in 1978 estimated that about 25 percent of college students had lived with a dating partner at some point in their college career.

In this thesis, we are primarily interested in differences between married and unmarried cohabitants in their degree of dispositional

transformation and outcome interdependence. The issue most relevant to this in the literature concerns differences in commitment between these two groups.

Several studies have found that married partners are more committed to continuing their relationship (Budd, 1976; Johnson, 1973; Lewis, Spanier, Storm Atkinson, & Lehecka, 1977). Montgomery (1972), on the other hand, argued that cohabitators need more commitment if they are to survive, because there are fewer legal and social obstacles to keep them from breaking up.

Studies of commitment and relationship type, however, are usually plagued by unclear definitions of commitment. It is argued here that the transformation of disposition is one indicator of commitment to the relationship. Therefore differences in degree of transformation between married and unmarried cohabiting couples can provide evidence for differences in commitment.

One area of fairly consistent findings in cohabitation research concerns differences in sex-role attitudes between unmarried cohabitators and other relationship types. Several studies have found that unmarried cohabitators report counter-traditional sex-role attitudes more frequently than do married cohabitators (Abrahams, Feldman, & Nash, 1978; Rappoport, 1965; Stafford, Backman, & DiBona, 1979), non-cohabiting dating couples (Lewis et. al., 1977; Rappoport, 1965), or the average person (Bower & Christopherson, 1977).

Abernathy (1981) and McCauley (1975) found that women cohabitators reported less traditional sex-role attitudes than non-cohabiting women.

They did not find significant differences, however, between cohabiting and non-cohabiting men.

Stafford et. al. (1979) did find significant differences in sex-role attitudes between married and unmarried cohabitators. In addition, they found that unmarried cohabitators were less likely to divide responsibilities for household tasks along traditional lines. But, they did not find any differences in the actual amount of time spent on household tasks or the proportion of tasks engaged in by the men and women in married versus unmarried cohabiting couples; in both groups, women performed a larger proportion of the tasks and spent more time in household tasks than did men. This last finding also appeared in studies by Garza (1980), Makepeace (1975), and Yllo (1978). Garza concluded:

...it is certainly no novel idea to acknowledge that one might be intellectually liberated but emotionally chained to custom (p. 163)

This issue (sex-role attitude differences) is raised because it is next argued that gender differences in the division of household chores may have serious implications for how pair member's perceive each other's feelings towards household task activities, and therefore, implications for the transformation of disposition.

Gender Differences in the Division of Household Chores

In a study of Australian families conducted over 30 years ago, Herbst (1952) found that responsibilities for household duties were very highly differentiated on the basis of gender: Cleaning, dusting,

washing clothees, ironing, and meal preparation were invariably the wife's responsibility. Chopping wood, mowing the lawn, and repairing broken things were most often the husband's tasks. Common household duties included buying groceries, setting the table, and doing dishes.

In addition to household duties, Herbst investigated the division of economic, social, and child care activities. He concluded that the roles of husbands and wives could be thought of in generally constant terms.

The basic role of the husband is thus that of providing the economic support of the family and that of the wife to look after the main household work and children. (p. 21)

In a large sample of American households, Blood and Wolfe (1960) found similarly well defined sex-roles for household tasks, where the wife was responsible for the majority of household tasks.

There have been many social changes in women's roles since the time of these two studies. From 1960 to 1980, female participation in the labor force increased from 37.7 percent to 51.5 percent. For married women with a husband present, the increase was even greater: from 30.5 percent in 1960 to 50.1 percent in 1980. During this same period of time, male participation decreased from 83.3 percent to 77.4 percent (U.S. Bureau of the Census, 1982)

But, in spite of the fact that the dual-employment family has become the modal family type, the idea that the woman runs the home still persists (Berger & Wright, 1978). After reviewing the research on changing women's roles in the job market and in the home, Scanzoni (1978) concluded that:

...women have not been able to get men to participate in those household duties to the same significant extent as women have been able to get themselves involved in the provider duty. (p. 82)

Many recent studies have found that the husbands of working wives help out more around the home than husbands of non-working wives (Berkove, 1979; Hooper, 1979; Keith, Goudy, & Powers, 1981; Model, 1981; Pleck, 1979; Safilios-Rothschild, 1970). But even in dual-career families--"where both husband and wife have jobs that are highly personally salient, have a developmental sequence, and require a high degree of commitment" (Rappoport & Rappoport, 1969)--the literature indicates that the wife still performs most of the domestic tasks (cf. Tryon & Tryon, 1982). Seiden (1980) points out that the common notion that the husband 'helps out' with household chores, implies that these chores are seen as the woman's responsibility in the first place.

There is clear evidence, then, that gender differences are still prevalent in the division of household tasks. Furthermore, it appears that women still tend to perform a much larger proportion of household tasks than do men, in spite of the fact that men are not as likely to compensate for this inequality in other domains (e.g., economic).

Research Questions and Hypotheses

A questionnaire study was conducted to pursue some of the theoretical issues raised in the preceding pages. Given the scarcity of empirical work based on these concepts, much of the current effort was geared towards the development of appropriate measurement techniques. A 'vector' method for deriving the components of

interdependence is described in Chapter II. The two methods for assessing outcome interdependence are then considered in Research question 1: How do the 'vector' and 'matrix' methods for deriving interdependence components compare?

Even if we can obtain reliable measures, the analysis of outcome interdependence may still be a very cumbersome approach to the study of personal relationships. Intimates jointly participate in many diverse activities. The methods will be manageable only if stable patterns of interdependence are exhibited among such couples. It was argued earlier (pp.45-47) that couples do, in fact, develop certain stable patterns of interdependence within domains of activities. Task activities and leisure activities were offered as two such domains. This issue is addressed in Hypothesis 1: The components of interdependence generalize within leisure activities and within task activities, but not between the two domains.

The associations among a pair members' components of interdependence was offered as a reflection of dispositional transformation (pp.43-44). This proposal, however, was contrary to the orthogonality of interdependence components implied by Kelley and Thibaut's analysis. This contrast is taken up in Hypothesis 2: The components of interdependence are not orthogonal.

Another measure basic to the exploration of dispositional and motivational transformation is the Index of Correspondence. It will be remembered that transformations function to decrease conflicting interests among the pair, thereby promoting relationship satisfaction.

Furthermore, the Index of Correspondence measures the degree of common versus conflicting interests. The validity of this index is considered in Hypothesis 3: The Index of Correspondence is positively associated with relationship satisfaction.

Having thus set the groundwork, evidence for motivational and dispositional transformations will then be examined. This analysis will begin with Research question 2: What evidence is there for motivational and dispositional transformations among these intimate pairs? The earlier critique of Kelley and Thibaut's transformation of motivation concept led to the proposal of the transformation of disposition concept. The two concepts are empirically compared in addressing Hypothesis 4: The transformation of disposition is more evident than is the transformation of motivation among intimate pairs.

Further analyses will concern differences in relationship type (marriage vs. cohabitation) and differences in household task responsibilities (men vs. women). Both of these exploratory analyses apply the outcome interdependence perspective to the study of existing social issues.

C H A P T E R I I

METHOD

Recruitment Procedure

The sample consisted of married and unmarried heterosexual couples who had been living together for five years or less, had no children, and currently resided in one-bedroom apartments. All recruiting was done in the vicinity of the University of Massachusetts at Amherst. Different recruiting procedures were used in university-owned family housing and in privately owned housing complexes.

The university's housing office provided a list of their one-bedroom apartments under the condition that no initial phone contact be made with the occupants. Letters were therefore delivered to all of these one-bedroom apartments to explain the nature of the study and the criteria for participation (Appendix A, p. 125). A return card (p. 126) was included, allowing potential respondents to indicate their willingness to participate in the study and permitting further contact by phone. The return card also asked ineligible households to indicate the reason for their ineligibility.

A total of 196 letters were sent out. Twenty-six cards (13%) were returned. Of these 26 households, only 14 satisfied the criteria for participation. For 11 of these couples, appointments were subsequently made for filling out the questionnaire. If the response rate for

ineligible households is assumed to be the same as for eligible households (i.e. if 54% of all university owned one-bedroom units were occupied by eligible couples), then there was a 10% overall response rate.

Additional respondents were recruited by a different method from two large privately owned housing complexes. Letters (Appendix A, p. 127) were delivered to one-bedroom apartments (identifiable by their physical structure) in each complex. A letter was placed at all apartments where the mailbox displayed two names that indicated occupants of different sex. The letters informed occupants that they would be contacted by phone to find out if they were willing to participate in the study; 77 letters were delivered in this fashion.

Fifty-four working phone numbers were obtained from the local phone book for these residences. Of the 54 households contacted, 16 were ineligible and 15 refused to participate. Six of the remaining 23 couples could not find a convenient time to participate. A total of 17 participating couples, consisting of 31% of the households contacted by phone, were recruited through this procedure. Finally, four additional couples were recruited through references from members of the first 28 couples. No more than one such reference was taken from any one couple.

Participant Characteristics

Both members of 32 couples participated in this study. Seventeen of these couples were married; the remaining 15 couples were unmarried

but mutually involved in an intimate relationship. The male respondents' ages ranged from 21 to 51, with an average age of 25.7 years (median of 24.7 years). The female participants ranged in age from 19 to 39, with an average age of 23.9 years (median of 22.7 years).

The occupational and educational status of male and female participants are shown in Tables 1 and 2, respectively. Over 70% of the men and over 55% of the women were currently graduate or undergraduate students at the university. Correspondingly, a vast majority of both men and women had at least some college education, and 56.2% of the men and 43.8% of the women were college graduates.

Table 1

Occupation of Respondents (in percent)

Occupation	Men	Women
Undergraduate student	31.3	40.6
Graduate student	40.6	15.6
Blue collar	12.5	9.4
White collar	6.3	12.5
Professional	9.4	15.6
Unemployed	0	3.1
Houseperson	0	3.1

Table 2
Education of Respondents (in percent)

Education	Men	Women
High school diploma	12.5	9.4
Some college	31.3	46.9
College diploma	28.1	31.3
Graduate degree	28.1	12.5

Male and female pair members provided similar estimates of the amount of time they spent together during a typical day (including sleeping time). For a typical weekday, the couples reported that they spent an average of 13 hours together. For a typical weekend day, these couples spent an average of about 19 hours together.

The number of hours respondents spent outside of the home is shown in Table 3. The modal category for both men and women was 31-50 hours per week, but the women's mean was lower.

Table 3

Hours per Week Spent Away from Home
(in percent per category)

Hours per week	Men	Women
less than 10	0	3.1
11 - 30	9.7	21.9
31 - 50	41.9	43.8
51 - 70	35.5	18.8
more than 70	12.9	12.5

The 17 married couples had been married from 3 to 43 months, with an average marriage length of 20.5 months. Eleven of the married couples had lived together before marriage, for an average of 6.3 months. Of the 15 unmarried pairs, nine had marriage plans, including five couples with definite plans to marry within a year. One male and one female respondent (members of two different couples) indicated that they would never marry.

For all 32 couples, the average time lived together was 27.1 months (range of 5 to 60 months). The current joint residence was the first one for eight of the couples. Another 16 couples had lived together in at least one previous residence with no additional housemates. The remaining eight couples had lived together before, but had additional housemates in their previous residence.

Procedure

Upon arriving at a participating couple's apartment⁵, Introductions were exchanged and the nature of the study was again explained. All questions were answered and both partners were given an informed consent form to read and sign. Both members of the couple were then given the questionnaire to fill out and were asked not to confer as they filled it out, but were encouraged to ask any questions that might arise.

After completing the questionnaire, respondents were invited to discuss the project. The ensuing discussions ranged from five minutes to an hour. All respondents indicated that they would be interested in learning the results of the study.

The Questionnaire

The same questionnaire (Appendix B) was administered to both members of the couples. It is organized into six sections as follows:

1. Background Information: age, occupation, education, and number of hours spent away from home per week (Part A of the questionnaire; see Appendix B).
2. Relationship History: length of time lived together, marital status, times of first date and when partners first became

⁵Six couples were met on campus.

serious about each other, periods of separation, joint housing history, and time spent in each other's presence (Part B).

3. Satisfaction with Relationship Scale: nine-item marital satisfaction scale adapted from Madden (1982) (Parts C and D).
4. Questions on the Experience of Living Together: a set of six open-ended questions about the satisfying and dissatisfying aspects of living together, the changes each person had experienced since living together, and further changes that the respondent would like to see in self and partner (Part E).
5. Division of Household Chores: for each of four sets of household chores (cleaning the apartment, doing laundry, cooking, and shopping for food), respondent is asked about the nature of chore division (open-ended question), proportion of chores performed, importance of chores to self, and satisfaction with own role and with the overall performance of the chores by the couple (Part F).
6. Feelings About Selected Activities: ratings of the feelings participants have towards engaging in the four sets of chores plus four leisure activities (reading, watching TV, listening to music, and going to a movie) under four different settings, described in detail below (Parts G and H).

The questionnaire took an average of 35 minutes to fill out. Some respondents completed it in 15, minutes whereas others took as long as 90 minutes.

Measuring Outcome Interdependence

The observed components of interdependence and transformed outcomes are obtained from the rating scales in the final section of the questionnaire (feelings about selected activities; Parts G and H). The very last page (Part H) contains two sets of scales in the format necessary to generate 2x2 outcome matrices; they were taken from Kelley's (1979) apartment cleaning example (pp. 24-25), and movie going example (pp.63-64). The other scales in this section (Part G) were constructed for use in the proposed 'vector' method for measuring outcome interdependence and transformed outcomes.

By this method, respondents rated their feelings towards self and/or partner performing each of eight activities (four task and four leisure) under four different settings. The four settings are referred to as follows:

1. Own solo actions, partner unaware - engaging in each activity alone while your partner is away and will not know of your actions or their consequences.
2. Own solo actions, partner aware - engaging in each activity while your partner is present but busy doing something else; your actions will not interfere.
3. Partner's solo actions - your partner engages in each activity alone while you are present but busy doing something else; your actions will not interfere.
4. Joint action - you and your partner jointly engage in each activity.

For each setting then, a vector of responses is obtained; each point in the vector representing a different activity. The components of interdependence are derived from these vectors in the following manner:

Reflexive control (RC) is equated with the vector of outcomes for own solo actions, partner aware (or RC is equated with the points in this vector; see discussion on the generality of components, pp.52-55 above). Other's fate control (FC) is equated with the vector of own outcomes for partner's solo actions (or points on the vector, as above). Behavior control (BC) is equated with the vector formed by the difference: joint actions minus own solo actions, partner aware. Behavior control therefore represents the expected outcome when one's partner joins in performing each activity with one's self. Finally, the 'vector' method provides a measure of transformed outcomes in the difference: own solo actions, partner aware minus own solo actions, partner unaware. This difference indicates the degree to which, and direction in which, one's self interest is transformed by considering the effect one's own actions have on the partner's outcomes.

It is argued that the proposed 'vector' method produces components of interdependence that are equivalent to those derived via corresponding outcome matrices. At the same time, the vector format was found to be far easier for respondents to use. Furthermore, the vector format is applicable to any type of activity, while the matrix method does not always allow this.

The equivalence of the two methods is not obvious. The following example should help to demonstrate how apparent differences between the 'vector' and 'matrix' methods are not real differences. Consider reflexive control (RC) for the apartment cleaning example. P's outcome matrix for apartment cleaning may look as follows:

		O's action		
		Clean	Not Clean	
P's action	Clean	+3	-6	Avg.=-1.5
	Not Clean	+8	-1	Avg.=+3.5
				RC=-5

Figure 11. An example of P's outcomes for cleaning the apartment in matrix format, and the subsequent derivation of P's reflexive control.

P's RC is the change in his average outcome as he moves from not cleaning to cleaning the apartment. In this example (taken from an observed case), P's RC is -5 units. Note two points in this method: (1) P explicitly evaluates both the cleaning and not cleaning alternatives, and (2) P's outcomes are averaged over O's actions in the calculation of RC.

By the vector method, a single expected outcome represents P's RC for apartment cleaning; P's expected outcome for cleaning the apartment alone while O is present but busy doing something else. (For the respondent used in the above example, the observed value for 'vector' derived RC was -6 units). Here, P only explicitly evaluates the cleaning alternative. In addition, his outcome is not averaged over O's actions. We feel that these apparent differences are compensated for in other ways.

It is argued that one's expected outcome for performing an activity is based on comparing (in one's mind) how it would feel to perform the activity with how it would feel not to perform the activity. Not performing the activity is therefore implicitly included in the vector derivation of RC. Further, we contend that in using a rating scale for indicating this outcome, a respondent references his or her judgement from a value of zero (for not performing the activity) to the particular positive or negative outcome he or she expects to incur upon performing the activity. Therefore, there is a difference in the points of reference that respondents use in each method, but the resulting value for reflexive control is the same. Figure 12 illustrates this last point.

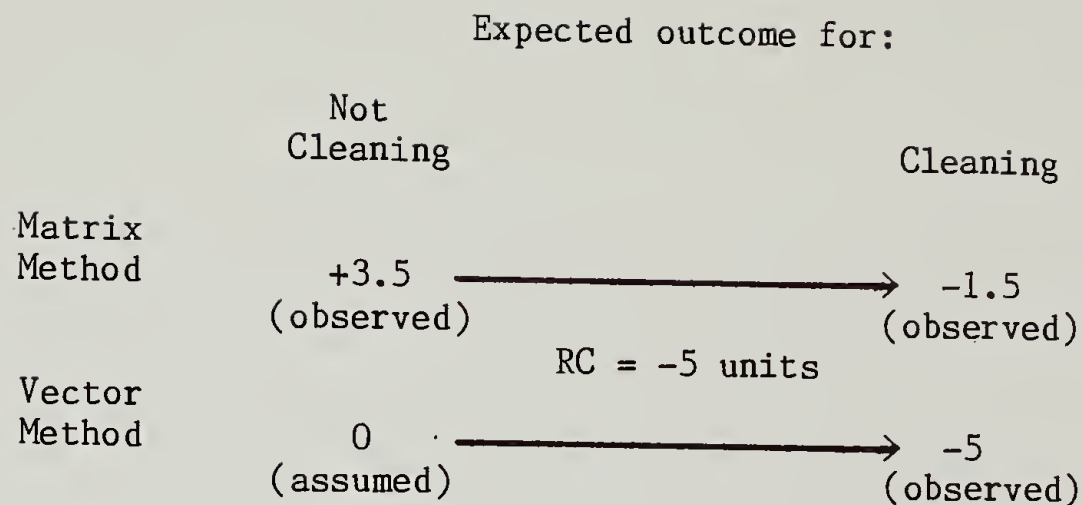


Figure 12. An example of the hypothesized reference points used by P in the matrix and the vector formats that produce equivalent values of reflexive control.

It was noted above that P's outcomes for own choice of action are averaged over O's actions when calculating RC via the matrix method. Correspondingly, RC represents P's influence over his own outcomes regardless of O's actions. It is argued that vector derived RC achieves this same quality by having the respondent imagine that his or her partner is busy doing something else. If one knows that the partner is otherwise engaged (presumably in an activity that does not conflict with one's own action), then own choice of action is guided by pure reflexive control.

The equivalence of the other components of interdependence (fate control and behavior control) derived via the two methods follows from the above argument for reflexive control.

If the two methods do, in fact, produce equivalent components, the use of the vector method is preferable because of its simplicity and applicability to a greater range of activities. The relative ease of

using the vector format was discovered while pilot testing the questionnaire. Respondents found that items in the vector format were far less time consuming and less draining to fill out than the same number of items presented in the matrix format. They could therefore cover more activities via the vector format before reaching a point of fatigue. In contrast, the matrix method is not always applicable to different types of activities (rewording is often necessary), and the events included in the matrix are sometimes infeasible. Further comparison of the two methods is left to the following chapter.

CHAPTER III

RESULTS

The results are presented in three sections. First the methods used to measure interdependence and the correspondence among these components are examined. Second, is an exploration of motivational versus dispositional transformations among the intimate pairs of this sample. Finally, findings relevant to differences in marital status and gender are reviewed.

Measurement Issues

Assessing outcome interdependence

Research question 1: How do the 'vector' and the 'matrix' methods for deriving interdependence components compare? For comparison purposes, Two sets of items were included in the questionnaire using the matrix format, The two examples were the apartment cleaning matrix and the movie going matrix referred to throughout the previous two chapters.

The apartment cleaning matrix compares self and/or partner cleaning versus not cleaning. The movie going matrix, however, includes events wherein self and/or partner go to own versus partner's preferred movie. These two matrices differ, then, in (a) type of

activity (task versus leisure) and (b) type of interaction events.

The corresponding vector items (apartment cleaning and movie going), like the two matrices, differ as to type of activity (task versus leisure). Unlike the matrices, the vector items do not differ as to type of interaction events; for both activities the items consider self and/or partner engaging in the activity.

The matrix and vector components derived for apartment cleaning, then, concern similar events surrounding the same activity. Table 4 shows that the components derived via the vector method are positively correlated with the corresponding components derived via the matrix method. However, the correlations are not very large.

Table 4
Matrix vs. Vector Components
for Apartment Cleaning

Component	Correlation	t-value for Difference Between Means (Matrix-Vector)
Reflexive Control	.27*	.19
Fate Control	.34**	-.22
Behavior Control	.44**	2.73**

N=64⁶; *p<.05; **p<.01

⁶Unless otherwise specified, N=64 in all subsequent analyses.

Table 4 also shows that the sample means for reflexive control and fate control derived by the vector method did not significantly differ from the means for the same components derived via the matrix method. The significant difference between the behavior control means is somewhat offset by the relatively high correlation between them. This indicates that these two versions of behavior control are associated, but differ in scale.

Table 5 shows the correlations between the movie going components derived via the two methods. Although the activity is the same in these two sets of components, the events differ (going to own or partner's preferred movie versus self and/or partner going to a movie). Here, the two sets of components are not significantly correlated. In addition, the sample means for the vector derived components for movie going differ significantly from those derived from the movie going matrix. Since the matrix and vector components were more highly associated for apartment cleaning (where the method differs but the interaction events are far more similar), it appears that the type of interaction events employed greatly influences the subsequently derived interdependence components.

Table 5
Matrix vs. Vector Components
for Movie Going

Component	Correlation	t-value for Difference Between Means (Matrix-Vector)
Reflexive Control	.11	-4.99**
Fate Control	-.02	-4.70**
Behavior Control	.07	6.81**

**P<.01

Table 6 shows that the matrix derived components for apartment cleaning are not positively associated with the matrix components for movie going; the only significant correlation is negative. In addition, there were significant differences between the sample means for each of the components derived from the two matrices.

Table 6
Cleaning versus Movie Components
Derived via Matrices

Component	Correlation	t-value for Difference Between Means (Cleaning-Movie)
Reflexive Control	-.04	-1.53
Fate Control	-.16	-4.25**
Behavior Control	-.30	-3.38**

*p<.05; **P<.01

The examples compared in Table 6 differ as to both type of activity and type of interaction events. Table 7 compares components that only differ as to type of activity. Here, the vector derived apartment cleaning components are slightly positively correlated with the vector components for movie going. Only the means for reflexive control differ significantly. That is, most people would prefer to go to a movie than to clean the apartment, but they are equally affected by their partner's action in each activity (fate control), and by how their partner's action compares with their own (behavior control).

Table 7
Cleaning versus Movie Components
Derived via Vectors

Component	Correlation	t-value for Difference Between Means (Cleaning-Movie)
Reflexive Control	.14	-7.07**
Fate Control	.05	-.26
Behavior Control	.18	-.34

**P<.01

In summary, the type of activity or interaction events in each set of items appear far more consequential for the resulting components than the method itself. Of these two kinds of differences, the type of interaction events were seen to have the greatest effect. The components were most similar for apartment cleaning, but the

correlations were not very large.

The final comparison between the matrix and vector methods considers the associations between respondent satisfaction and the components of interdependence for apartment cleaning. Table 8 shows that the vector derived components are more strongly associated with respondents' satisfaction with the overall performance of apartment cleaning. The matrix components, on the other hand, are more strongly associated with the highly reliable relationship satisfaction scale (Cronbach's alpha=.94). It should be noted that the corresponding correlations for the two methods are in the same direction.

Table 8

Correlations Between Respondent Satisfaction and the Components of Interdependence for Apartment Cleaning

Respondent Satisfaction	Matrix Components	Vector Components
Overall Performance of Apartment Cleaning		
Reflexive Control	.06	.27*
Fate Control	-.18	-.38**
Behavior Control	-.21	-.29**

Relationship		
Reflexive Control	.05	.10
Fate Control	-.31**	-.23*
Behavior Control	-.30**	-.22*

*p<.05; **p<.01

When used for similar events and the same activity, the matrix and vector methods produce components that are moderately associated with each other, and similarly associated with respondent satisfactions. Although the above analysis provides no clear evidence for the equivalence of components derived by the two methods, neither does it preclude the use of the vector method. In addition, the complexity of matrix method items made it infeasible to include a large number of them in the questionnaire. Therefore, the remainder of this chapter employs only vector derived components.

The distribution of the components of interdependence

Given the centrality of the components of interdependence in the current analysis, a summary of the observed distributions of these components is provided in Table 9. The sample means and standard deviations of the components are displayed for each task and leisure activity.⁷

Pair members' reflexive control and fate control for the four leisure activities varies mostly on the satisfaction side of the satisfaction/dissatisfaction scale. That is, few respondents reported that they did not like it when either they themselves or their partner

⁷A 21 point scale was used for all expected outcome items (-10 = extremely dislike, 0 = neutral, + 10 = extremely like). For statistical analyses, these scales were transformed using a modified square root arctangent transformation (Smith, 1976). This a priori transformation does not change values between -6 and +6, but ± 7 become ± 7.5 , ± 8 become ± 9 , ± 9 become ± 11 , and ± 10 become ± 14 . The purpose of this transformation is to extend the end-points of the scale and thereby increase the 'normality' of the resulting distributions.

engaged in any of these leisure activities. Of these activities, watching television elicited the largest number of negative responses, but over three-quarters of the sample reported that they enjoyed watching television by themselves, and an even greater number reported that they liked it when their partner watches TV.

Table 9
The Components of Interdependence:
Distribution over Activities

Activity	Reflexive Control		Fate Control		Behavior Control	
	Mean	(SD)	Mean	(SD)	Mean	(SD)
Leisure						
Reading a Book	6.9	(5.4)	6.3	(5.2)	.4	(3.9)
Watching Television	2.4	(5.7)	2.7	(6.1)	4.0	(3.9)
Listening to Music	8.2	(4.5)	6.4	(5.0)	1.0	(2.8)
Going to a Movie	7.5	(5.5)	5.0	(5.9)	2.6	(3.9)

Total Leisure Component	25.0	(13.5)	20.4	(16.8)	8.1	(8.0)
Task						
Cleaning the Apartment	1.3	(5.1)	4.7	(5.5)	2.4	(6.2)
Doing Laundry	.3	(5.5)	3.4	(5.1)	1.2	(5.1)
Cooking Meals	5.2	(5.7)	5.9	(5.4)	-1.0	(7.2)
Shopping for Food	4.0	(4.7)	3.8	(6.0)	1.3	(4.6)

Total Task Component	10.8	(14.5)	17.7	(15.6)	3.9	(14.6)

For task activities, pair members reported more positive responses for fate control than for reflexive control; they tended to be more satisfied if their partner did the tasks than if they did the task themselves. In addition, the mean fate control for leisure items was higher than the mean for the task items, indicating that pair members were more satisfied if the partner performed a leisure activity than if

the partner performed a task activity.

Finally, the distribution of behavior control over the task and leisure activities tended to be centered more around the neutral (zero) point than either reflexive control or fate control. However, the majority of pair members were positively affected when their partner joined them in performance of each of the task and leisure activities.

The intimate pair members of this sample were, in general, positively affected by their own performance, their partner's performance, and the joint performance of these activities. This was particularly true for leisure activities. The next section explores the consistency of the components among the sample couples.

Outcome interdependence in domains of activities

The use of the components of interdependence to characterize stable features of particular pair members' relationships rests on the ability to summarize the components across the many diverse activities in which the pair interact.

Hypothesis 1: The components of interdependence generalize among leisure activities and among task activities, but not between the two domains. Table 10 displays the reliability coefficients of the scales formed by adding the individual component items together for each set of four activities, and for the entire set of eight activities. In addition, the correlation between the leisure and task component scales is displayed.

Table 10
Reliability of Component Scales

Scale	Cronbach's alpha:		
	Reflexive Control	Fate Control	Behavior Control
Leisure	.52	.75	.20
Task	.63	.66	.47
Combined	.62	.75	.35

Correlation Between Task and Leisure Scales	.23*	.34**	-.01

*p<.05; **p<.01

Reflexive control shows a moderate degree of consistency among the leisure items. Pair members who have relatively high reflexive control over their outcomes for one task activity tend to have relatively high reflexive control for other task activities. Reflexive control is even more consistent among task activities. Contrary to our hypothesis, however, reflexive control appears to be as consistent between task and leisure activities as it is within either domain.

Fate control is the most consistent of the three components, particularly among the leisure activities. Like reflexive control, fate control is as consistent between the task and leisure activities as it is among each set of activities.

Behavior control is the least consistent of the three components, particularly among the leisure activities. The relative enjoyment that

pair members experience when their partner joins them in performing an activity varies from one activity to another. In other words, pair members' feelings towards doing things with their partner depends more on the activity than on the relationship.

Only part of Hypothesis 1 was supported. Reflexive control and fate control did generalize among the leisure activities and among the task activities. Behavior control, on the other hand, displayed only a small amount of consistency across task activities, and very little consistency among the leisure activities. Furthermore, the reflexive control and fate control components appear to generalize between leisure and task activities as strongly as they generalize among each set of activities. Although much less consistent within each domain, behavior control did not generalize between the domains.

Having demonstrated the consistency of at least reflexive control and fate control among these pair members, summary measures of these components can be interpreted as representing a more stable trait of such intimate relationships. For much of the remaining analysis, the components will be combined over leisure activities and over task activities, separately.

The associations among the components of interdependence

Kelley and Thibaut's analysis of outcome interdependence matrices implies that the components of interdependence are orthogonal. We have argued otherwise. In this section, the empirical associations among the components of interdependence are examined.

Hypothesis 2: The components of interdependence are not orthogonal. Table 11 display two measures of association among the components of interdependence: between subject correlations and within subject correlations. A between subject correlation indicates if individuals who differ in one component tend to systematically differ in the other component. For example, the positive between subject correlation for leisure reflexive control and leisure fate control (.74) indicates that individuals who have a relatively high reflexive control for leisure activities also tend to have relatively high fate control for over their leisure outcomes. The corresponding mean within subject correlation (.49), on the other hand, indicates that, for the average respondent, high reflexive control for one leisure activity tends to be associated with high fate control for the same activity.

Therefore, the between subject correlations are calculated for each pair of component scales (e.g., leisure RC and leisure FC) over all respondents. The within subject correlations are calculated over the individual activities for each pair of components (e.g., RC and FC for the four leisure activities) for each individual. Table 11, then, displays the single between subject correlation, and the mean of 64 within subject correlations, for each pair of components in each domain.

Table 11
Correlations Among the Components
of Interdependence

Components	Between Subject Correlation		Mean Within Subject Correlation	
	Leisure Activities	Task Activities	Leisure Activities	Task Activities
Reflexive Control and Fate Control	.74**	.08	.49**	.12
Reflexive Control and Behavior Control	-.22*	-.51**	-.51**	-.41**
Fate Control and Behavior Control	.04	.42**	-.25**	.19**

* $p < .05$; ** $p < .01$

Note--for the between subject correlations, the significance level is for the test, $r=0$. For the within subject correlations, the significance level is for the test, $t=0$ (that is, the mean of the within subject correlations equals zero).

Five of the six within subject correlations, and four of the six between subject correlations are significantly different from zero. Clearly, then, the components of interdependence are not orthogonal. That there is a distribution of within subject correlations also implies that there are individual differences in the degree of association between components. This will be returned to later.

Table 11 also reveals differences between task component associations and leisure component associations. It will be remembered that, contrary to Hypothesis 1, the components were found to generalize from leisure to task activities. The above differences, however, substantiate the contention that the task and leisure domains have

different properties in the analysis of outcome interdependence.

The Index of Correspondence

Another measure basic to the exploration of transformations is the Index of Correspondence. This index measures the degree of common versus conflicting interests among pairs. As such it is expected that this index is positively associated with the satisfaction that pair members derive from their relationship.

Hypothesis 3: The Index of Correspondence is positively associated with relationship satisfaction. Table 12 displays the correlations between the Index of Correspondence calculated for leisure and task components separately. As hypothesized, the index for leisure activities is positively correlated with relationship satisfaction. The index for task activities was not, however, significantly correlated with relationship satisfaction.

Table 12

Correlations Between the Index of Correspondence
and Relationship Satisfaction

Scale	Correlation
Leisure	.38**
Task	.08

**p<.01

In addition, the Index of Correspondence for task activities was not significantly correlated with respondents' satisfaction with the performance of household tasks, although the correlations were all positive (ranging from .05 to .17). All of these correlations must be considered in light of the differing levels of observation represented by these variables. Whereas relationship satisfaction is a personal measure for each pair member, the Index of Correspondence is a dyadic or interpersonal variable; calculated by combining both participants' components of interdependence.

Having examined some of the empirical properties of the central variables in this study (the components of interdependence and the Index of Correspondence), the more substantive analyses of this thesis begins with an empirical exploration of the concepts of interpersonal transformations: Kelley and Thibaut's transformation of motivation, and the newly proposed transformation of disposition.

Motivational versus Dispositional Transformations

Assessing transformations

Research question 2: What evidence is there for motivational and dispositional transformations among these intimate pairs? This section looks at the various strategies for measuring interpersonal transformations.

Motivational transformations. Kelley and Thibaut's transformation of motivation concept refers to the adjustments pair members make in their personal preferences to account for the partner's interests. To assess such changes, pair members were asked to rate their outcomes for engaging in the various task and leisure activities under two differing settings. In the first setting, participants imagine that their partner is away for several weeks, and will not know of their own action or the consequences of such action. In the second setting, participants are told to imagine that their partner is present, but busy doing something else. It is specifically mentioned that they should consider how their outcomes change as a result of their partner now knowing of their actions.

The second setting (partner present but busy doing something else) represents the vector method for assessing reflexive control. The difference between outcomes in the two settings is the transformation of reflexive control due to taking the partner's interests into account; an example of motivational transformation.

Table 13 displays the means and standard deviations of the transformation of reflexive control observed among the sample pair members. For the leisure items, the average respondent's satisfaction for engaging in each activity went down when taking the partner's interests into account. More than half of the pair members reported no change. For task activities, on the other hand, most pair members indicated that they were more satisfied (or less dissatisfied) when performing tasks by themselves if they considered their partner's interests in their actions.

Table 13

Difference in Reflexive Control Depending
on Partner's Presence or Absence*

Activity	Mean	Standard Deviation
Leisure		
Reading a Book	-1.5	3.8
Watching Television	- .8	2.3
Listening to Music	- .7	2.5
Going to a Movie	- .2	4.5

Total Leisure	-3.2	8.1
Task		
Cleaning the Apartment	.7	4.2
Doing Laundry	1.7	3.3
Cooking Meals	.9	4.0
Shopping for Food	1.3	3.9

Total Task	4.8	10.2

*A positive difference indicates that the pair member is more satisfied when partner is present. A negative difference indicates that the pair member is more satisfied when the partner is away.

For the task activities it appears that these pair members' expected outcomes for their own solo actions is more likely to change in a positive direction as they consider their partner's interests.

Table 14 displays the inter-item reliability coefficients for the scales formed by summing the transformation values for each set of activities and for the full set of activities.

Table 14

The Transformation of Reflexive Control:
Reliability over Task and Leisure Activities

Scale	Reliability (Cronbach's alpha)
Leisure	.39
Task	.58
Combined	.40
----- Correlation between task and leisure scales	-.04

The transformation of reflexive control is moderately consistent among the task activities, and somewhat less consistent among the leisure activities. Furthermore, the two transformation scales are not significantly correlated with each other.

Dispositional transformations. It was argued earlier that, rather than experiencing motivational transformations upon confronting

situations in their relationships, intimate pair members undergo dispositional transformations through the course of their relationship. Furthermore, it was argued that the degree to which intimate pair member P has transformed his disposition can be assessed by examining the similarity between his influence over his own outcomes for leisure activities (leisure RCp) and the influence that O has over his outcomes for the same activities (leisure FCp).

It has already been shown that pair member's reflexive control is highly correlated with fate control for leisure activities, but not for task activities (Table 11). Consider, now, the difference between pair members' reflexive control and fate control for leisure activities. For 65.6 percent of the sample this difference was greater than zero; these pair members were more strongly affected by their own actions in leisure activities than by their partner's actions in these same activities. This also indicates, however, that over one-third of the sample (34.4%) indicated that they are more positively affected when their partner performs leisure activities than when they perform the same activities themselves. This difference (leisure RC minus leisure FC) is taken as a measure of the degree of dispositional transformation.

For task activities, on the other hand, the vast majority of pair members experienced higher fate control than reflexive control over their task outcomes. That is, pair members generally enjoy it more when their partner performs the household tasks, as compared to when they perform the tasks themselves.

Transformations and the Index of Correspondence. According to Kelley, one of the major functions of motivational transformation in an intimate relationship is to increase the correspondence between pair member's outcomes. It was argued earlier that the transformation of disposition serves the same function. Table 15 compares the Index of Correspondence calculated using 'untransformed' reflexive control (partner away for two weeks) versus the Index of Correspondence calculated using 'transformed' reflexive control (partner present but busy doing something else).

Table 15

Sample Means for the Index of Correspondence based on
Untransformed versus Transformed Reflexive Control

Scale	Untransformed Index of Correspondence	Transformed Index of Correspondence	t-value for Difference Between Means
Leisure	.63	.60	.29
Task	.22	.37	-2.97**

N=32 couples; **p<.01

Here we see that there is practically no difference in the average Index of Correspondence for leisure activities when going from untransformed to transformed reflexive control. In fact, the little change that does occur is in the direction of increased non-correspondence.

For the task activities, however, there is a significant increase in the average Index of Correspondence when going from untransformed to

transformed reflexive control. This suggests that the transformation of motivation does function among these couples to increase the correspondence of their outcomes for task activities. This is not found for leisure activities, however.

The measure of dispositional transformation (FC-RC for leisure activities) was positively correlated with the Index of Correspondence for leisure activities ($r=.41$, $p<.01$). Therefore, more dispositionally transformed pair members tend to have more correspondent outcomes for leisure activities than do less dispositionally transformed pair members. The same measure (FC-RC) for task activities is negatively but not significantly correlated with the Index of Correspondence for task activities ($r=-.21$)

Transformations and satisfaction. Finally we consider how motivational and dispositional transformations are associated with respondent satisfaction. The transformation of reflexive control for task activities was positively correlated with pair members overall satisfaction with the performance of household chores ($r=.21$; $p<.05$). In addition, this measure of motivational transformation for tasks was positively correlated with pair members' satisfaction with their relationship ($r=.11$) and with their satisfaction with their role in household chores ($r=.07$). Neither of these latter two correlations were significant. The transformation of reflexive control for leisure activities, on the other hand, displayed a small but insignificant negative correlation with relationship satisfaction ($r=-.08$).

The transformation of disposition for leisure activities (as measured by the similarity between leisure RC and leisure FC) was positively correlated with relationship satisfaction ($r=.30$; $p<.01$). When considered for task activities, this same measure exhibited a marginally significant negative correlation with relationship satisfaction ($r=-.20$; $p<.10$).

There is fair evidence, then, for both motivational and dispositional transformations among the pairs of this sample. The proposed measures of these two constructs were found to be associated with outcome correspondence and with respondent satisfaction.

Hypothesis 4: the transformation of disposition is more evident than is the transformation of motivation among intimate pairs. The two types of interpersonal transformations appear closely tied to different domains of activities. As expected, more dispositionally transformed pair members have more correspondent outcomes for leisure activities and tend to be more satisfied with their relationship. The transformation of motivation appears to function to increase outcome correspondence for task activities. It will be remembered, however, that outcome correspondence in task activities was not significantly correlated with relationship satisfaction. Therefore, it appears that both types of transformations are operative in these couples, but that dispositional transformation is more closely tied to relationship satisfaction.

Next the similarities and differences between members of married versus unmarried cohabiting couples, and between the men and the women of the sample, are explored.

Marital Status and Gender Differences

Married versus unmarried cohabitation

The couples of this sample were almost evenly divided between 17 "Marrieds" and 15 "Unmarrieds." There were no significant differences between these two groups in the distributions of couple members' ages, educational level, and occupational status. Additionally, both groups had similar distributions for the amount of time lived together, the amount of time couple members had known each other as dating partners, and the amount of time partners spent together during an average day. The only difference in demographics between the members of these two groups was, then, marital status.

In terms of the interdependence components (reflexive control, fate control, and behavior control for leisure and task activities) there were also no significant differences. The task components were, in fact almost identically distributed for both Marrieds and Unmarrieds. The same was true for leisure reflexive control. The Marrieds did tend to have a higher average for leisure fate control and leisure behavior control, but neither of these differences were even marginally significant. These small differences are only mentioned because they were large relative to the similarity of the other component distributions.

Turning to the Index of Correspondence for the leisure and task component scales, Table 16 shows that there were some small differences between the two groups. For leisure correspondence (which is significantly positively correlated with relationship satisfaction [$r=.38$; $p<.01$]), the Marrieds had a slightly higher average. This difference did not approach statistical significance.

Table 16

The Index of Correspondence Among
Marrieds versus Unmarrieds

Activity	Marrieds	Unmarrieds	t-value for Difference Between Means
Leisure	.63	.58	-.42
Task	.28	.46	1.45

N=32 couples

For the task Index of Correspondence, there was a larger difference between the two groups. The Unmarrieds averaged higher on the task Index of Correspondence, but again this difference was not significant (a t-value of approximately 2.00 would be significant). In addition, it will be remembered that the task Index of Correspondence was not significantly associated with relationship satisfaction, although it was positively correlated with pair members' satisfaction with the overall performance of household chores.

Following this pattern of results, the Married couples were found to be more dispositionally transformed than Unmarrieds (as measured by the similarity between leisure RC and leisure FC). Although the difference between the two groups was not statistically significant, it was larger than the difference indicated by the leisure Index of Correspondence ($t=-1.21$ as compare to $-.41$ above). It will also be remembered that this measure of dispositional transformation is significantly positively correlated with relationship satisfaction ($r=.30$, $p<.01$). It appears, then, that married pair members tend to feel more similarly about their own actions and their partner's actions in leisure activities, as compared to the Unmarrieds.

On the other hand, the Unmarrieds averaged a higher degree of motivational transformation for task activities (in accordance with their higher average Index of Correspondence for tasks). This indicates that Unmarrieds' feelings towards engaging in tasks become more positive when they take their partners' interests into account, as compared to Marrieds. This difference was not significant though, and was even smaller than the difference between the two groups in dispositional transformations ($t=.49$, as compared to $t=-1.21$).

The small differences found between Marrieds and Unmarrieds seem to be closely tied to the distinction between leisure and task activities. Marrieds tend to have more correspondent outcomes for leisure activities, and to be more dispositionally transformed (the measure of which is based on outcomes for leisure activities). Unmarrieds, on the other hand, tend to be more attuned to responding to

their partners' interests in accomplishing household tasks. When their partner is at home, they tend to they tend to feel better about performing household tasks (i.e., a higher reflexive control), as compared to when their partners are away.

Earlier findings, however, showed that both correspondence among leisure outcomes and the degree of dispositional transformation were positively correlated with relationship satisfaction. However, correspondence among task outcomes and the transformation of personal preferences for task activities were not significantly correlated with relationship satisfaction. This leads to the final consideration of differences between Marrieds and Unmarrieds. Are couples in one of these groups any more satisfied with their relationships than couples in the other group? The answer to this question is yes. The Marrieds were, as a group, significantly more satisfied with their relationships ($t=2.20$, $df=63$, $p<.05$), when compared to the Unmarrieds.

Gender differences

There were some differences between the men and women of the sample in the components of interdependence. On the average, the women had significantly higher reflexive control for leisure activities ($t=2.20$, $df=31$, $p<.05$). That is, on the average, women expressed more positive outcomes for their own behavior in leisure activities than did the men. The women also averaged higher fate control and behavior control for leisure activities than the men, but these differences did not approach statistical significance. The men and women were,

therefore, similarly affected by their partner's leisure actions.

For task activities, women had higher averages for both fate control ($t=1.91$, $df=31$, $p<.10$) and behavior control ($t=2.03$, $df=31$, $p<.10$). It appears, then, that women's outcomes for tasks tend to be more highly dependent on their partner's actions, than are the men's outcomes for tasks.

Turning to the measures of interpersonal transformations, the men had higher averages for the measures of both dispositional transformation (leisure) and motivational transformation (task). Neither of these differences were significant, but the difference between men and women was greater for motivational transformation ($t=1.14$, $df=31$), than for dispositional transformation ($t=.84$, $df=31$).

There was, however, practically no difference between the average level of relationship satisfaction experienced by the men and women of the sample. In fact the correlation between pair members' relationship satisfaction was $.83$ ($p<.01$), indicating that close to 70 percent of the variance in a pair member's relationship satisfaction could be accounted for by his or her partner's satisfaction.

The only area in which substantial gender differences were found was in the task arena. It was stated above that women's task outcomes tend to be more dependent on their partners task actions, as compared to the men. Table 17 displays the breakdown of proportion of apartment cleaning engaged in by the men and women of the sample (self-report measures). The women perform a significantly higher proportion of the cleaning chores, but there are quite a few couples in which the man

performs at least half of the chores.

Table 17

Proportion of Apartment Cleaning Performed
by Men versus Women

Proportion	Men		Women	
	Percent	(N)	Percent	(N)
0 - 20%	9.4	(3)	3.1	(1)
21 - 40%	37.5	(12)	6.3	(2)
41 - 60%	40.6	(13)	56.3	(18)
61 - 80%	9.4	(3)	12.5	(4)
81 - 100%	3.1	(1)	21.9	(7)
----- Average Proportion	41.9%		*	58.7%

*t-test for difference in mean proportion
significant at $p < .05$

The reader may notice that the breakdown for the men and the women are not as negatively associated as one might expect them to be. That is, the man and woman's proportions within a couple should add up to 100 percent. One major reason for the imperfect negative association is that these are self report measures made by each couple member independently. Couple members are known to over-estimate their participation in such chores. In addition, the categorical breakdown of proportions may result in some inaccuracy. Another reason to keep in mind though, is that a pair may engage in such tasks together. If

they do, then both may perceive themselves as engaging in a large proportion of the task. The actual correlation between pair members' responses is, however, significantly negative ($r=-.68$, $p<.01$), indicating that there is a fairly high degree of the expected negative association.

Table 18 shows that the women perform a marginally significantly higher proportion of the laundry chores. Again, there are quite a few couples in which the man performs at least 50 percent of the laundry chores.

Table 18

Proportion of Laundry Chores Performed
by Men versus Women

Proportion	Men		Women	
	Percent	(N)	Percent	(N)
0 - 20%	18.8	(6)	9.4	(3)
21 - 40%	21.9	(7)	3.1	(1)
41 - 60%	37.5	(12)	43.8	(14)
61 - 80%	12.5	(4)	18.8	(6)
81 - 100%	9.4	(3)	25.0	(8)
Average Proportion	.45.0%		+ 56.2%	

+t-test for difference in mean proportion
significant at $p<.10$

There do seem to be more instances in which one person is responsible for performing the majority of the laundry chores, as compared to the apartment cleaning chores, and in most cases it is the woman. The correlation between pair members' responses was $-.70$ ($p < .01$).

For the cooking chores (Table 19), the difference between the men's and women's average proportions was not statistically significant. However, the women's average proportion is still higher than the men's.

Table 19

Proportion of Cooking Chores Performed
by Men versus Women

Proportion	Men		Women	
	Percent	(N)	Percent	(N)
0 - 20%	12.5	(4)	6.3	(2)
21 - 40%	34.4	(11)	18.8	(6)
41 - 60%	28.1	(9)	28.1	(9)
61 - 80%	15.6	(5)	31.3	(10)
81 - 100%	9.4	(3)	15.6	(5)
Average Proportion	45.0%		n.s.	56.2%

n.s.: t-test for difference in mean proportion
did not yield significant results

The correlation between the men and women's responses for cooking proportion was $-.88$ ($p < .01$). One reason for the extremely high negative association here is that cooking tended to be the most specialized of the chores considered in this study. Many of the couples had even worked out fairly rigid schedules for this task.

Finally, Table 20 shows that the average proportion of shopping chores was not significantly different between the men and the women. The women again had the higher average proportion.

Table 20
Proportion of Shopping Chores Performed
by Men versus Women

Proportion	Men		Women	
	Percent	(N)	Percent	(N)
0 - 20%	12.5	(4)	6.3	(2)
21 - 40%	3.1	(1)	6.3	(2)
41 - 60%	59.4	(19)	50.0	(16)
61 - 80%	3.1	(1)	3.1	(1)
81 - 100%	21.9	(7)	34.4	(11)
----- Average Proportion	53.7%		n.s.	60.6%

n.s.: t-test for difference in mean proportion
did not yield significant results

The division of shopping chores was somewhat different from the other three. Many of the couples reported that they usually shopped

for food together. This group is present in both the 41-60% category and the 81-100% category. For this reason, the average proportion for men and women add up to well over 100 percent. In addition, all but two couples either split the shopping equally (N=24 couples) or had one person do all the shopping (N=6 couples). For these reasons, the correlation between pair members' proportions of involvement in shopping was the lowest in magnitude ($r=-.47$, $p<.01$).

Over all tasks, the men performed an average of 46.3% of the chores, and the women an average of 58.8%. This difference was highly significant ($t=3.09$, $df=31$, $p<.01$). The difference is most apparent for cleaning and laundry chores. It will be remembered that the average of reflexive control for these same two chores was the lowest (Table 9). Therefore, it appears that the women perform a disproportionate amount of the tasks that are least enjoyed.

Furthermore, the correlation between the proportion of chores engaged in and the amount of time spent away from home is negative for the women ($r=-.38$, $p<.05$), but positive for the men ($r=.31$, $p<.05$). This indicates that women who spent more time away from home tend to perform less household chores than women who spent less time away from home (as might be expected). For men, however, spending more time away from the home was associated with performing a higher proportion of household chores. This contrary finding is enlightened by the positive correlation between the amount of time both partners spent away from home ($r=.58$, $p<.01$). Both members of the pair then, tend to have spent similar amounts of time away from home. It appears, then, that if the

women had the time at home she was likely to perform many of the household chores, even if her male partner had as much time to do so. If the woman spent much time away from home, however, then the man had to do his part to accomplish the necessary household maintenance tasks. This generalization has many exceptions among the relatively egalitarian couples of this sample.

Is it possible that since the man's role in performing household tasks tends to be seen as secondary to the woman's role, he gets to pick which tasks he will perform? This might explain why the division of chores is most disproportionate for the least enjoyed chores (cleaning and laundry).

To examine this question, an index was created to express the congruence between a pair member's outcomes and his or her role in each chore. Respondents were asked how each chore was divided in an open-ended question. The responses to this question were then categorized.

It was reasoned that the components of interdependence can be seen as either congruent or incongruent with the type of chore division. For example, if a pair member was solely responsible for doing the cooking, then his or her components were congruent if he or she had a high reflexive control, low fate control, and low behavior control for cooking. Similarly, if the partner was solely responsible for cooking, high fate control, low reflexive control, and low behavior control were considered congruent.

Table 21 displays the categories used to code the open ended questions on task division, and the weights applied to the components

of interdependence for each category. The weights were assigned such that the sum of the weights for all categories were equal.

Table 21

The Index of Congruence for Task Activities:
Interdependence Component Weights by Division Category

Category	Weights:		
	Reflexive Control	Fate Control	Behavior Control
Self performs most, if not all of the task	+7	-3	-1
Partner performs most, if not all of the task	-3	+7	-1
The task is divided, but not performed together	+1.5	+1.5	0
The task is gener- ally performed together	+0.5	+0.5	+2
We each take care of our own chores com- pletely separately	+3	0	0

There was no significant difference between the average Index of Congruence for the men and women of the sample. The men did have a slightly higher average index, but the difference did not approach statistical significance ($t=.35$, $df=31$). Table 22 displays the correlations between the Index of Congruence and respondent satisfaction for the men and women of the sample.

Table 22

The Index of Congruence and Respondent
Satisfaction by Sex

Satisfaction with:	Men	Women
Own role in household chores	.11	.33*
Overall performance of household chores	.13	.31*
Relationship	.05	.27+

N=32 men and 32 women; +p<.10; *p<.05

There is a gender difference here. Task outcome/task division congruence is more strongly associated with women's task satisfactions, as well as with their relationship satisfaction, as compared to the men. It is also interesting to note that the Index of Congruence is highly correlated between pair members ($r=.58$, $p<.01$). This suggests that such congruence may not be achieved by individual actions (e.g., taking responsibility for tasks one prefers to do in the first place), but rather by arrangement among the couple (e.g., a give and take arrangement that results in better feelings towards one's responsibilities).

Given that women tended to perform a disproportionate amount of the less enjoyable tasks, and that they were more sensitive to the congruence between their outcome preferences and the actual division of household chores, it would seem likely that women were less satisfied

with their roles in household chore performance. Yet, just the opposite is true. The women were significantly more satisfied with their role in household chores, as compared to the men ($t=2.05$, $df=31$, $p<.05$). This finding, along with further discussion of other results, are discussed in further detail in the next chapter.

CHAPTER IV

DISCUSSION

Review of Purpose

The purpose of this thesis was to study changes that people undergo through their involvement in intimate relationships. Of particular interest was how the desire to accommodate an intimate partner's interests becomes part of each participant's own self-interest. This change reflects a transformation from an "I" to a "we" identity on the part of a pair member. This transformation is further seen as vital for married and cohabiting pairs. Members of such pairs must jointly deal with many day-to-day decisions and activities, that repeatedly require each partner's concern for the other's well-being as much as for one's own.

To study the such transformations, Kelley's (1979) conceptual model of personal relationships was considered. According to Kelley, intimate pair members are very responsive to one another's interests in the course of their frequent interaction. Each participant must depend on the partner for the fulfillment of many personal needs and desires. This two way dependence and caring makes it necessary for participants to incorporate the other's personal interests into one's own in order to satisfy the longer term interests of the pair. Kelley labels this process, the transformation of motivation.

Kelley's model, and the earlier work upon which it is based (Kelley and Thibaut, 1978), provides several measurement strategies for assessing such transformations. But, in trying to apply these techniques to long-term relationships, several conceptual and methodological difficulties were encountered. These problems were addressed and Kelley's concepts refined in order to apply this unique perspective to the study of differences in marital status and gender among married and cohabiting couples.

Review of Major Findings

Measurement issues

Assessing outcome interdependence. In comparing Kelley and Thibaut's matrix method for assessing components of outcome interdependence with the proposed vector method, it was found that method of measurement had far less consequences (for the resulting components) than did type of activity and type of interaction combinations. For the same activity and similar events (the apartment cleaning example), components derived via the vector method were significantly correlated with those from the matrix method (ranging from $r=.27$ for reflexive control to $r=.44$ for behavior control). In addition, the sample means for two of the components (RC and FC) did not differ significantly.

On the other hand, components derived for different activities, and especially for different interaction events, were markedly

different. Although there was no clear evidence that the matrix and vector methods produced equivalent components, the simpler vector derived components were adopted for the remainder of the analysis.

Outcome interdependence in domains of activities. As hypothesized, fate control and reflexive control were found to be consistent for individual pair members among leisure and among task activities. Contrary to the hypothesis, these two components were as consistent between task and leisure activities as they were among each domain. Behavior control was less consistent among each domain and exhibited no consistency between the two domains. These findings suggested that general reflexive control and fate control scales could be formed by combining each component over task and over leisure activities, separately.

The associations among the components of interdependence. Many significant correlations were found among the components of interdependence. These strong associations were found for both between subject correlations and within subject correlations. As hypothesized, the components of interdependence were not orthogonal.

The Index of Correspondence. A measure of common versus conflicting interests among the pair, Kelley and Thibaut's Index of Correspondence for leisure activities was significantly correlated with pair members' satisfaction with their relationships ($r=.38$). The Index of Correspondence for task activities was not significantly correlated with relationship satisfaction ($r=.08$).

Motivational vs. dispositional transformations

The transformation of motivation. To assess motivational transformation, pair members were asked how they felt about engaging in various activities both when their partner was away and when their partner was present but otherwise engaged. The difference between these two sets of expected outcomes represents an outcome transformation due to the partners awareness of own activities.

On the average, pair members reported more positive expected outcomes for engaging in task activities when their partner was present (but busy doing something else), as compared to when their partner was away. This transformation of personal outcome preference was found to be fairly consistent across the different task activities (Cronbach's $\alpha=.58$). In addition, the transformed task outcomes made for a significantly higher Index of Correspondence than did the untransformed outcomes.

Task outcome transformations were significantly correlated with overall satisfaction with the performance of household chores ($r=.21$). In addition this measure of motivational transformation was positively (although not significantly) correlated with relationship satisfaction ($r=.11$) and with satisfaction with own role in household chores ($r=.07$).

Leisure outcome transformations were, on the average negative; many pair members enjoyed participating in leisure activities more when their partner was away than when their partner was present and doing something else. In addition, leisure outcome transformations were not

significantly associated with pair members relationship satisfaction. The small correlation was, in fact, negative ($r=-.08$).

The transformation of disposition. Pair members were said to be dispositionally transformed if they felt similarly about their own actions and their partner's actions. This was argued to be particularly relevant for leisure activities; where pair member's do not incur direct benefits from the other's action. Therefore, similarity between own influence over own outcomes (reflexive control), and partner's influence over own outcomes (fate control) for leisure activities was adopted as a measure of the degree to which pair members were dispositionally transformed.

This measure was significantly correlated with both the Index of Correspondence for leisure activities ($r=.41$), and with relationship satisfaction ($r=.30$). These associations did not hold for the task domain. Therefore, the transformation of disposition was assessed only in the leisure domain.

Differences according to marital status or to gender

Married versus unmarried cohabitation. Very few differences were found between the married and unmarried couples of the sample. The Marrieds had a slightly higher average Index of Correspondence for leisure activities, but a somewhat lower average Index for task activities. Neither difference was significant. Similarly, Marrieds were, on the average, more dispositionally transformed, but Unmarrieds exhibited higher degrees of motivational transformation for task

activities.

There was, however, one important significant difference between the Marrieds and Unmarrieds. The Marrieds were significantly more satisfied with their relationships than were the Unmarrieds ($t=2.20$, $df=31$, $p<.05$).

Men versus Women. One area in which there were consistent gender differences was in the division of household chores. The women performed a significantly higher proportion of the cleaning and laundry chores, and tended to do more of the cooking and shopping chores.

Women who spent more time away from home tended to perform less chores than those women who spent more time at home ($r=-.38$ between time spent away from home and overall proportion of household chores performed). For the men, however, the amount of time spent away from home was positively correlated with the proportion of household chores engaged in ($r=.31$). Given that members of the same pair tended to have spent similar amounts of time away from home, it appears that the women performed more of the chores if they were home to do so, even if their male partner also was home. If the Woman did not have the time to perform many of the chores, then the man tended to take a larger role in household maintenance.

Women's preferences for engaging in household task were slightly less congruent with the actual division of household tasks than were men's, but the difference was not significant. For the women, however, there was a significant positive correlation between task outcome/task division congruence and satisfaction with the performance of household

tasks. Women's outcome/division congruence was also positively correlated relationship satisfaction. These same correlations were positive for the men, but did not approach significance. Finally, the women were found to be significantly more satisfied with their own role in household task than were the men ($t=2.05$, $df=31$, $p<.05$).

Interpretations

The analysis of outcome interdependence

Kelley and Thibaut (1978) decompose pair members' outcomes for activities in their relationship into three sources of variation: reflexive control, fate control, and behavior control. These concepts are very useful for the study of personal relationships, but in many ways they are very cumbersome.

The analysis of outcome matrices provides several intriguing indices of outcome interdependence: degree of dependence, mutuality of dependence, basis of dependence, and the correspondence of outcomes. Unfortunately, Kelley and Thibaut's mostly brilliant analysis is plagued by the analysis of variance analogy used to derive the components. This problem is not fatal to their perspective, but it requires an altering of some of the indices which they propose to measure dimensions of outcome interdependence.

Furthermore, the outcome matrix technique is difficult to use in a natural setting. The items are often hypothetical, rather wordy, and sometimes offer the respondent infeasible activities to consider.. The vector method proposed in this thesis may circumvent some of these

methodological difficulties, but it too can use some refinements.

Summarizing aspects of pair members' outcome interdependence is also necessary when using this perspective. Intimates frequently interact, and do so in many diverse activities. It was found, however, that two of the components of outcome interdependence (reflexive control and fate control) were very consistent among leisure and among task activities for the sample pairs. Therefore, it appears that pair members develop rather stable dependencies across at least some activities in their relationship. Although the components were consistent between both domains of activities (task and leisure) there were different associations among the components within each domain.

Another problem with this interdependence perspective is in its terminology. Interdependence is used only to refer to pair members' mutual influence over each other's feelings of satisfaction and dissatisfaction (i.e., outcomes). Such outcomes, however, are very vague, and are likely based on many different factors. This was stated earlier when the task/leisure distinction was discussed. A task activity is evaluated on the basis of both how it feels to do it and how it feels to get it done. A leisure activity, on the other hand, is evaluated only on the basis of how it feels to do it.

A related problem in terminology concern the use of the term "control" in the components of interdependence. Here, control does not refer to the manipulation of objects or other people, as it usually does. Instead, it refers to the manipulation of a person's feelings towards doing things. The perspective does not speak at all to the

actual behavior. What it does speak to, then, is more like one's attitudes towards specific behaviors.

Interpersonal transformations

One valuable contribution of this perspective to the study of close relationships is the concept of motivational transformation. As it was argued earlier, there are several problems with Kelley and Thibaut's conception of motivational transformation. But, the general notion that people take other's interests into account in their own actions is central to all of social psychology.

Kelley's (1979) model of personal relationships specifically applies the transformation of motivation concept to the analysis of intimate relationships. It should be noted, however, that in other writings (Kelley and Thibaut, 1978; Kelley, 1983) The concept is applied to more general instances of dyadic interaction. Kelley (1983) argues that people develop stable tendencies to transform their motivation in their interaction with others (not just with intimate others). In intimate relationships, however, what is important is that participants accomodate their particular partner as they would no one else.

The transformation of disposition concept proposed in this thesis, relates more specifically to changes in a person due to a particular relationship. It goes beyond the transformation of motivation by accounting for changes in the personalities of people that result from intense personal relationships. This concept is not new to social

psychology.

The idea that people's feelings towards objects, activities, and other people develop through their relationships with other's is not new to social psychology. Kurt Lewin (1935) spoke of induced forces on a child's behavior brought about by the actions of other's in the child's environment.

Many objects in the environment, many modes of conduct, and many goals acquire a positive or a negative valence...not directly from the needs of the child himself, but through another person. More important, however, is the effect of example, that is, of that which the child sees characterized by the behavior of adults as positive or negative for them. (p. 98)

These induced forces often provide the child with his or her first evaluation of a behavior, object, or other person. But the transformation of disposition among intimates most often entails changes in both participant's earlier held beliefs and feelings. Early in the relationship, a pair member may engage in an activity for which he or she is not personally motivated. Pleasing the partner may serve as the motivator behind such an action. But, after repeated occurrences, the same action may become rewarding in and of itself to the participant. This change may be seen as an example of Gordon Allport's (1961) concept of functional autonomy.

Functional autonomy... refers to any acquired system of motivation in which the tensions involved are not of the same kind as the antecedent tensions from which the acquired system developed. (p. 229)

Aside from changes in personal beliefs, feelings, and motivations, the transformation of disposition also entails the aspect of a growing unity, or "we-feeling" by pair members. There is, then, an interesting

paradox to the transformation of disposition. As the pair member's personalities are becoming more complementary (and less conflicting), there will be fewer occasions for participants to act out of their own interests in the interests of the other and, therefore, fewer instances of caring behavior.

This apparent paradox is not likely to be a problem, however. Although pair members' personalities may change to become somewhat more complementary, it is not likely that the two will ever be of one mind. Intimate partners are not always together. Most couple members work in different settings and have other interests and friends that take up their time. In addition, our society places a high value on individuality. Pair members may often strive to maintain differences, for this will help them maintain their own identity and, at the same time, it will give rise to many occasions in which they may go out of their way to please the partner.

It is quite possible, however, that actions originally taken to please the partner but currently taken because they are pleasing in and of themselves, may create problems in a relationship. Such a situation may result in the partner feeling taken for granted, as their pleasure is not the impetus for the action anymore, but has become a secondary concern at best.

Marriage versus cohabitation

Very few differences were found between married and unmarried couples. One significant difference was, however, in relationship satisfaction. The Marrieds were, as a group, more satisfied with their relationships than were the Unmarrieds. Even the Unmarrieds who had plans for marriage were less satisfied as a group when compared to the Marrieds. Perhaps then, marriage is an indication that an intimate relationship has progressed to a more satisfying level.

These findings should be considered in light of the college environment from which this sample was drawn. Cohabitation is far more prevalent on and near college campuses than elsewhere. Unmarried cohabitation is often quite casual among transient student populations. Marriage, however, is seen by many as a greater commitment to the future of a relationship. Therefore, couples may decide to marry only if their relationship is highly satisfying, but they may decide to live together under less ideal circumstances. This finding may not be relevant in other areas (non-college) where unmarried cohabitation may be seen as an alternative, rather than a precursor, to marriage.

Gender differences

Substantial gender differences were found in the division of household tasks. Women performed more of each of the four household tasks considered (cleaning the apartment, doing laundry, cooking meals, and shopping for food). The participation of men in household tasks was, however, greater than has been traditionally found in the literature. This may be attributed to two factors. First, The

inhabitants of the area in which this study was done are generally considered progressive in their social attitudes. In addition, many of the couples in this sample were not yet "settled down." The majority of the pair members (both male and female) were college students. It is possible that these couples may fall into more traditional roles when they leave the college setting.

There was evidence that women were more sensitive about their feelings towards the division of household tasks than were men. But, in spite of the fact that the women performed more of the tasks (especially the less agreeable ones), they were, as a group, more satisfied with their role in household tasks than the men. It is quite possible that the women compare their household workload with that of their mothers, or to that of other women in even egalitarian settings, and not with the workload of their male partners. Similarly, the men may see themselves as being responsible for more chores than were their fathers or men in other settings. The men may accept the rationality of their relatively high level of household task performance, but they may not yet accept their duties emotionally.

Limitations

The sample

The current sample represents a group of highly educated, mostly progressive people. They are largely from middle class and upper middle class backgrounds. Furthermore, many of the pair members were in a period of life transition, either preparing for or just beginning

new careers.

It will also be remembered that the response rate was fairly low (about 10% in the university housing sample and 30% in the private housing sample). The sample of 32 couples was therefore both self-selected and relatively small.

The research context

There are two levels at which the research context limited this study. First, the study took place in the vicinity of the University of Massachusetts. As with many large university communities, certain types of lifestyles are more common than in other settings. For example, unmarried cohabitation is far more prevalent around college campuses than elsewhere.

Another contextual limitation concerns the housing of the sample couples. They lived exclusively in rented one-bedroom apartments. Since the couples did not own their homes, the household chores required for home maintenance precluded some of the more traditionally 'male' chores. For example, repairing things around the house was not necessary as this was taken care of by the owners of the housing complexes.

The need for longitudinal data.

The present results are based on a questionnaire administered at a single point in time. Yet many of the concepts studied refer to processes that occur over time. The proposed concept of dispositional transformation is one such developmental concept. Evidence for

dispositional transformations was obtained via between subject analyses. This may be suitable as a starting point, but a rigorous exploration of these concepts requires data collected from pair members at several points in time.

Avenues for Further Research

The directions which can be taken from the current study are many. There are still many basic measurement issues which should be explored in further detail. Many of the fundamental concepts remain vague. Further clarification and validation of the interdependence components should perhaps be the first step. In the current analysis, the stability of the interdependence components over domains of activities was considered in some detail. We have largely ignored, though, differences in components resulting from the use of different types of events (as in the movie going matrix).

The concepts of motivational and dispositional transformation were given far more logical attention than empirical attention. This was largely because of uncertainty with the underlying measures (i.e. the components). For further empirical analyses, multiple indicators of these rather abstract conceptions should be developed. In addition, issues of construct validity should be addressed more rigorously.

There are also many different types of relationships for which this conceptual framework can be used. Parent-child and peer friendships are two examples. Both of these types of relationships transform the participants in many profound ways.

It should be pointed out that this perspective is still in its infancy. It has a lot to offer though, to the field of Social Psychology. In a recent article, Kelley (1983) has proposed that his and Thibaut's analysis of outcome interdependence may help to unify the field of Social Psychology by providing a theory of the origins of human tendencies. This thesis has shown that, although this perspective may indeed have a lot to offer to the field of social psychology, it is going to need a lot of serious attention.

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APPENDIX A

Mailings Used to Solicit Study Participants



The Commonwealth of Massachusetts
University of Massachusetts
Amherst 01003

DEPARTMENT OF PSYCHOLOGY

February, 1982

Dear Family Housing Resident(s):

Couples living in small apartments, such as those in University Family Housing, have different experiences from couples living in other sorts of housing. We are currently studying the arrangement of household roles in small living environments and we need your help.

Your answers will help us to represent your situation fairly and accurately. Therefore, we would greatly appreciate it if both members of your couple would agree to fill out a questionnaire as part of our study. It will take only 20-40 minutes.

At this time, we are looking for couples who have been living together for five years or less and have no children. Couple members of any age or background qualify. All answers are treated confidentially and anonymously.

People who have participated so far say that it has helped them to better understand their relationship's history. In addition, our findings will help to advance knowledge of close relationships in differing living quarters.

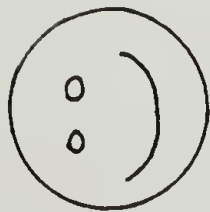
Please fill out the enclosed card and drop it into campus mail. If you prefer, call Vic Borden at 586-4368 between 5 p.m. and 8 p.m. to schedule a convenient time for your participation. If you are unsure about taking part, or if you have any questions about the study, please call Vic. We will not contact you again without your consent.

We thank you in advance for your cooperation.

Sincerely,

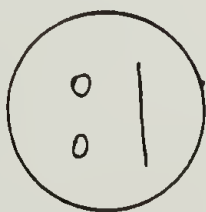
Victor Borden
 Project Director

George Levinger
 Professor of Psychology



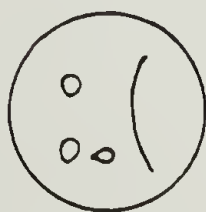
We would be glad to help you.

Our names are _____



We would like more information before we commit ourselves.

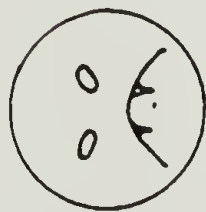
_____. You can call



We're sorry, we can't help you because (circle reason)

- a) I am not a couple
- b) We have been living together for more than 5 years
- c) We have children
- d) Other _____

us _____ at _____
(when) (phone #)



We are sick and tired of being asked to fill out questionnaires. We have a good mind to call out a "60 Minute" crew on you.



DEPARTMENT OF PSYCHOLOGY

The Commonwealth of Massachusetts
University of Massachusetts
Amherst 01003

February, 1982

Dear Puffton Village Resident(s):

Couples living in small apartments, such as those in Puffton Village, have different experiences from couples living in other sorts of housing. We are currently studying the arrangement of household roles in small living environments and we need your help.

Your answers will help us to represent your situation fairly and accurately. Therefore, we would greatly appreciate it if both members of your couple would agree to fill out a questionnaire as part of our study. It will take 20-40 minutes.

At this time, we are looking for couples (whether married or not) who have been living together for five years or less and have no children. Couple members of any age or background qualify. All answers are treated confidentially and anonymously.

People who have participated so far say that it has helped them to better understand their relationship's history. In addition, our findings will help to advance knowledge of close relationships in differing living quarters.

We will contact you within two weeks to see if you will help us. If you prefer, call Vic Borden at 586-4368 between 5 p.m. and 8 p.m. to schedule a convenient time for your participation. If you are unsure about taking part, or if you have any questions about the study, please call Vic.

We thank you in advance for your cooperation.

Sincerely,

Victor Borden
 Project Director

George Levinger
 Professor of Psychology

APPENDIX B

The Questionnaire

INSTRUCTIONS

The following questionnaire includes questions about a variety of issues and activities related to living with an intimate partner. Answer the questions according to how you feel or what you think right now. (People's feelings and thoughts about close relationships change, sometimes within short periods of time, so please focus on your current opinions). Feel free to ask the interviewer about any questions that are not clear.

A. BACKGROUND INFORMATION

1. What is your age? _____
2. What is your occupation? _____
3. What is the highest education level that you completed?
____ less than high school diploma
____ high school diploma
____ some college or technical school (including
associate's degree)
____ college diploma
____ graduate degree
4. Approximately how many hours a week do you spend away from home?
____ 10 or fewer
____ 11 - 30
____ 31 - 50
____ 51 - 70
____ more than 70

B. RELATIONSHIP HISTORY

1. How long have you been living together? _____ years _____ months
2. Are you married? _____ yes _____ no
 - 2a. If yes, how long have you been married? _____ years _____ months
 - 2b. If no, are there any plans for marriage? _____ yes _____ no
 - 2c. When (if ever) do you expect to be married? _____

B. (cont'd.)

3. When did you start dating your partner? _____month _____year
4. When did you first consider this to be a serious relationship?
_____month _____year
5. Have you ever broken off this relationship for any period of time?
_____yes _____no
 - 5a. If yes, when and for how long?
6. Have there been any other periods of prolonged separation
(more than one month apart)? _____yes _____no
 - 6a. If yes, when and for how long?
7. Is this the first apartment that you and your partner have
lived in together? _____yes _____no
 - 7a. If no, in how many other places have the two of you
lived together? _____
 - 7b. In how many of these other places did the two of you
live just by yourselves? _____
8. About how many hours per average day would you say that the
two of you spend in each other's presence (including sleeping)?
 - a. weekdays: _____hours per (24-hour) day
 - b. weekends: _____hours per (24-hour) day

C. FEELINGS ABOUT YOUR RELATIONSHIP

Place a check in the space that best represents how you feel right now.

1. Have you ever wished that you were not living with your partner?

:_____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ :
 frequently very frequently sometimes occasionally rarely

2. If you had your life to live over again, would you:

_____ a. live with the same person?
 _____ b. live with a different person?
 _____ c. not live with an intimate partner at all?

3. How happy are you with your relationship?

:_____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ :
 extremely very happy happy unhappy very unhappy
 happy happy

4. How happy do you think your partner is with your relationship?

:_____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ :
 extremely very happy happy unhappy very unhappy
 happy happy

5. How often does your partner do things that you do not like?

:_____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ :
 very frequently frequently sometimes occasionally rarely
 frequently

6. How often do things seriously annoy you about your relationship?

:_____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ :
 very frequently frequently sometimes occasionally rarely
 frequently

7. How often are you highly satisfied with your relationship?

:_____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ :
 very frequently frequently sometimes occasionally rarely
 frequently

8. How frequently do you and your partner get on each other's nerves around the house?

:_____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ :
 never occasionally sometimes almost always
 frequently

D. RELATIONSHIP DIFFICULTIES

Check any of the following items which you think have caused serious difficulties in your relationship.

- | | |
|---|--|
| <input type="checkbox"/> Attempts by one person to control the other's spending money | <input type="checkbox"/> Partner paid attention to (became familiar with) another person |
| <input type="checkbox"/> Other difficulties over money | <input type="checkbox"/> Desertion |
| <input type="checkbox"/> Religious difficulties | <input type="checkbox"/> Alcohol or drug use |
| <input type="checkbox"/> Different interests | <input type="checkbox"/> Gambling |
| <input type="checkbox"/> Lack of mutual friends | <input type="checkbox"/> Ill health |
| <input type="checkbox"/> Constant bickering | <input type="checkbox"/> One of you sent to jail |
| <input type="checkbox"/> Interference from parents | <input type="checkbox"/> Division of housekeeping and other home chores |
| <input type="checkbox"/> Lack of mutual affection (no longer in love) | <input type="checkbox"/> Selfishness and lack of cooperation |
| <input type="checkbox"/> Unsatisfying sexual relations | <input type="checkbox"/> Relationships with friends |
| <input type="checkbox"/> Desire to get married | <input type="checkbox"/> Unplanned pregnancy |
| <input type="checkbox"/> Desire to have children | <input type="checkbox"/> Other reasons |

E. (cont'd.)

4. Since you started living with your partner, how have you changed?

5. What, if any, aspects of your partner would you like to see changes in?

6. What, if any, aspects of yourself would you like to see changes in?

Instructions for the use of 21-point scales

The remaining pages contain many items that are to be rated on scales of the following form

a) $\frac{-10 \ -9 \ -8 \ -7 \ -6 \ -5 \ -4 \ -3 \ -2 \ -1 \ 0 \ +1 \ +2 \ +3 \ +4 \ +5 \ +6 \ +7 \ +8 \ +9 \ +10}{\text{extremely dissatisfied} \qquad \qquad \qquad \text{neutral} \qquad \qquad \qquad \text{extremely satisfied}}$

or

b) $\frac{-10 \ -9 \ -8 \ -7 \ -6 \ -5 \ -4 \ -3 \ -2 \ -1 \ 0 \ +1 \ +2 \ +3 \ +4 \ +5 \ +6 \ +7 \ +8 \ +9 \ +10}{\text{extremely dissatisfied} \qquad \qquad \qquad \text{neutral} \qquad \qquad \qquad \text{extremely satisfied}}$

As an example of scale a, you might be asked:

How satisfied are you with the size of your living room?
 $\frac{-10 \ -9 \ -8 \ -7 \ -6 \ -5 \ -4 \ -3 \ -2 \ -1 \ 0 \ +1 \ +2 \ +3 \ +4 \ +5 \ +6 \ +7 \ +8 \ +9 \ +10}{\text{extremely dissatisfied} \qquad \qquad \qquad \text{neutral} \qquad \qquad \qquad \text{extremely satisfied}}$

In this example, +3 indicates that the respondent is somewhat, but not greatly satisfied.

As an example of scale b, you might be asked:

How much do you like defrosting the refrigerator?
 $\frac{-10 \ -9 \ -8 \ -7 \ -6 \ -5 \ -4 \ -3 \ -2 \ -1 \ 0 \ +1 \ +2 \ +3 \ +4 \ +5 \ +6 \ +7 \ +8 \ +9 \ +10}{\text{extremely dislike} \qquad \qquad \qquad \text{neutral} \qquad \qquad \qquad \text{extremely like}}$

In this case, -5 indicates a fair amount of dislike for defrosting the refrigerator.

If the scales were more fully labelled they might look as follows:

$\frac{-10 \ -9 \ -8 \ -7 \ -6 \ -5 \ -4 \ -3 \ -2 \ -1 \ 0 \ +1 \ +2 \ +3 \ +4 \ +5 \ +6 \ +7 \ +8 \ +9 \ +10}{\text{extremely} \quad \text{moderately} \quad \text{neutral} \quad \text{moderately} \quad \text{extremely}}$
 $\frac{\text{very} \quad \text{slightly} \quad \text{slightly} \quad \text{very}}{\text{dissatisfied or dislike} \quad \text{satisfied or like}}$

Please mark only one \times for each scale. Use the extreme ends of the scale only if your feelings are truly extreme.

If you have any questions concerning any item, please feel free to ask.

F. HOUSEHOLD CHORES

People who live together often come to take on fixed responsibilities for certain household chores. One member of the household might be chiefly responsible for preparing dinner, while the other is responsible for doing the laundry. In other words, each person has a set of specific chores for which he or she is usually responsible.

Responsibilities for other chores may vary over time, depending on schedule variations or changing desires.

This section of the questionnaire concerns the division of certain household chores between you and your partner. Four different sets of chores are considered (cleaning the apartment, doing the laundry, cooking, and shopping for food).

F. (cont'd.)

2. Doing the Laundry

a. How are the laundry chores divided between you?

b. How much have you discussed how the laundry chores should be divided?

: _____ : _____ : _____ : _____ : _____ :
 very much much moderate amount some little or none

c. What percent of the total laundry chores do you personally engage in?

: _____ : _____ : _____ : _____ : _____ :
 0-20% 21-40% 41-60% 61-80% 81-100%

d. How satisfied are you with your own role in doing the laundry chores?

_____ -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10
 extremely dissatisfied neutral extremely satisfied

e. How satisfied are you with the way laundry chores are done overall?

_____ -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10
 extremely dissatisfied neutral extremely satisfied

f. How important is it to you personally to have fresh laundry?

: _____ : _____ : _____ : _____ : _____ :
 not important slightly important moderately important very important extremely important

G. FEELINGS ABOUT SELECTED ACTIVITIES

1. Please rate the following items according to only your own self-interest. That is, do not consider how your partner would feel about or be affected by whether you engage in each activity. It might help if you imagine that your partner is away for several weeks. Or, you could imagine that you are living alone. The key phrase is your own self-interest.

How much do you like doing each of the following activities?

- a) cleaning the apartment

-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10		
extremely										neutral											extremely	
dislike																						like
- b) reading a book for pleasure

-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10		
extremely										neutral											extremely	
dislike																						like
- c) doing laundry

-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10		
extremely										neutral											extremely	
dislike																						like
- d) cooking

-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10		
extremely										neutral											extremely	
dislike																						like
- e) watching TV

-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10		
extremely										neutral											extremely	
dislike																						like
- f) listening to music

-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10		
extremely										neutral											extremely	
dislike																						like
- g) shopping for food

-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10		
extremely										neutral											extremely	
dislike																						like
- h) going to a movie

-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10		
extremely										neutral											extremely	
dislike																						like

G. (cont'd.)

2. Please rate each of these items while considering how your partner is affected by each action. In other words, how do your previous ratings change when you also concern yourself with your partner's interests? You might imagine that your partner is busy doing something else in the apartment. He or she is aware of what you are doing, but will not be interfered with by your actions. You may want to look back at your previous ratings to see how you would change them.

How much do you like doing each of the following activities?

a) cleaning the apartment

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10
 extremely dislike neutral extremely like

b) reading a book for pleasure

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10
 extremely dislike neutral extremely like

c) doing laundry

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10
 extremely dislike neutral extremely like

d) cooking

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10
 extremely dislike neutral extremely like

e) watching TV

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10
 extremely dislike neutral extremely like

f) listening to music

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10
 extremely dislike neutral extremely like

g) shopping for food

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10
 extremely dislike neutral extremely like

h) going to a movie

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10
 extremely dislike neutral extremely like

G. (cont'd.)

3. On this page, please rate how much you like engaging in each of these activities with your partner. Again, you may refer back to your previous ratings.

How much do you like:

- a) cleaning the apartment together

-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10
extremely dislike	neutral										extremely like									
- b) reading books for pleasure together (each reading your own book)

-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10
extremely dislike	neutral										extremely like									
- c) doing laundry together

-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10
extremely dislike	neutral										extremely like									
- d) cooking together

-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10
extremely dislike	neutral										extremely like									
- e) watching TV together

-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10
extremely dislike	neutral										extremely like									
- f) listening to music together

-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10
extremely dislike	neutral										extremely like									
- g) shopping for food together

-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10
extremely dislike	neutral										extremely like									
- h) going to a movie together

-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10
extremely dislike	neutral										extremely like									

H. HYPOTHETICAL SITUATIONS

For each of the following two hypothetical situations, please rate your feelings towards all four courses of action.

1. The apartment needs to be cleaned. You and your partner have some time available but each of you would rather do some other things. How much would you like it if:

a) you both clean the apartment

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10
 extremely dislike neutral extremely like

b) you clean the apartment and your partner does something else

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10
 extremely dislike neutral extremely like

c) your partner cleans the apartment and you do something else.

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10
 extremely dislike neutral extremely like

d) neither of you cleans the apartment (you both do something else)

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10
 extremely dislike neutral extremely like

2. On a given evening there are two movies that you may go to.
 (1) a movie that you yourself very much want to see, and
 (2) a movie that your partner very much wants to see. How much would you like it if:

a) you both go to the movie that you want to see

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 3 +4 +5 +6 +7 +8 +9 +10
 extremely dislike neutral extremely like

b) you go to the movie that you want to see and your partner goes to the movie that he or she wants to see

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10
 extremely dislike neutral extremely like

c) you go to the movie that your partner wants to see and your partner goes to the movie that you want to see

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10
 extremely dislike neutral extremely like

d) you both go to the movie that your partner wants to see

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10
 extremely dislike neutral extremely like

