5. The Relationship Between Communication and Marital Satisfaction: A Cross-Lagged Panel Analysis

5.1. INTRODUCTION

In the past two decades, a considerable body of research has focused on the influence of interaction and communication behavior on marriage and marital quality (Bradbury, Fincham, & Beach, 2000; Matthews, Wickrama, & Conger, 1996). Within this literature, it is widely assumed that marital communication is instrumental for marital quality and even one of the most crucial factors contributing to marital satisfaction (Karney & Bradbury, 1995; Lewis & Spanier, 1979; Noller & Fitzpatrick, 1990; Olson, McCubbin, Barnes, & Hill, 1983). According to Noller and Fitzpatrick (1990, p. 839) "[there is] weight of evidence that marital interaction causes marital satisfaction".

It is most unlikely, though, that only a one-way relationship from communication to marital satisfaction exists. The idea that marital satisfaction may also affect how partners interact with each other is represented in Karney and Bradbury's (1995) vulnerability-stress-adaptation model, but also supported in several observational studies (Gottman, 1994; Gottman & Krokoff, 1989; Noller, 1981).

Little attempt is made, however, to address the relative strength of the two associations in order to clarify whether communication is rather an antecedent or a consequence of marital satisfaction. Instead of cross-sectional studies, a longitudinal design is required to fully capturing this reciprocal relationship. An example is the study of Noller and Feeney (1994) on encoding and decoding behavior of spouses. From their study, it became clear that relationship satisfaction might be a stronger predictor of communication than communication is of later satisfaction. However, because the majority of studies have not aimed to establish the relative strength of the two directions, there is not much evidence for the antecedent-consequent nature of the relationship between communication and marital satisfaction.

According to Karney and Bradbury (1995, p. 25) this lack of evidence regarding the relative contribution of marital satisfaction to communication

"leaves open the possibility that marital quality accounts for variation in marital behavior more than marital behavior leads to changes in marital quality". The main topic of our contribution is directed towards this specific issue. Using panel data from 386 couples participating in a Dutch research project, our objective is to provide insight in the nature of this relationship.

Besides the relevance of gaining insight in this dynamic nature, a better understanding of the longitudinal association between marital satisfaction and communication is in particular important because some marital interaction patterns (e.g., disagreement, anger exchanges) may be harmful for concurrent satisfaction but not for later satisfaction (Gottman & Krokoff, 1989). It is speculated that couples may develop a sense of confidence that they can weather conflict together, positively affecting their satisfaction with marriage. In American and Dutch samples it is demonstrated, for example, that communication behavior such as "getting angry" and "interrupting each other" was negatively associated with spouses' current marital experiences (Buunk & Nijskens, 1980; Gottman, 1991; 1993; 1994; Kerkstra, 1985), though, it remains to be seen whether this set of behaviors, hereafter called negative communication, also negatively predicts later satisfaction.

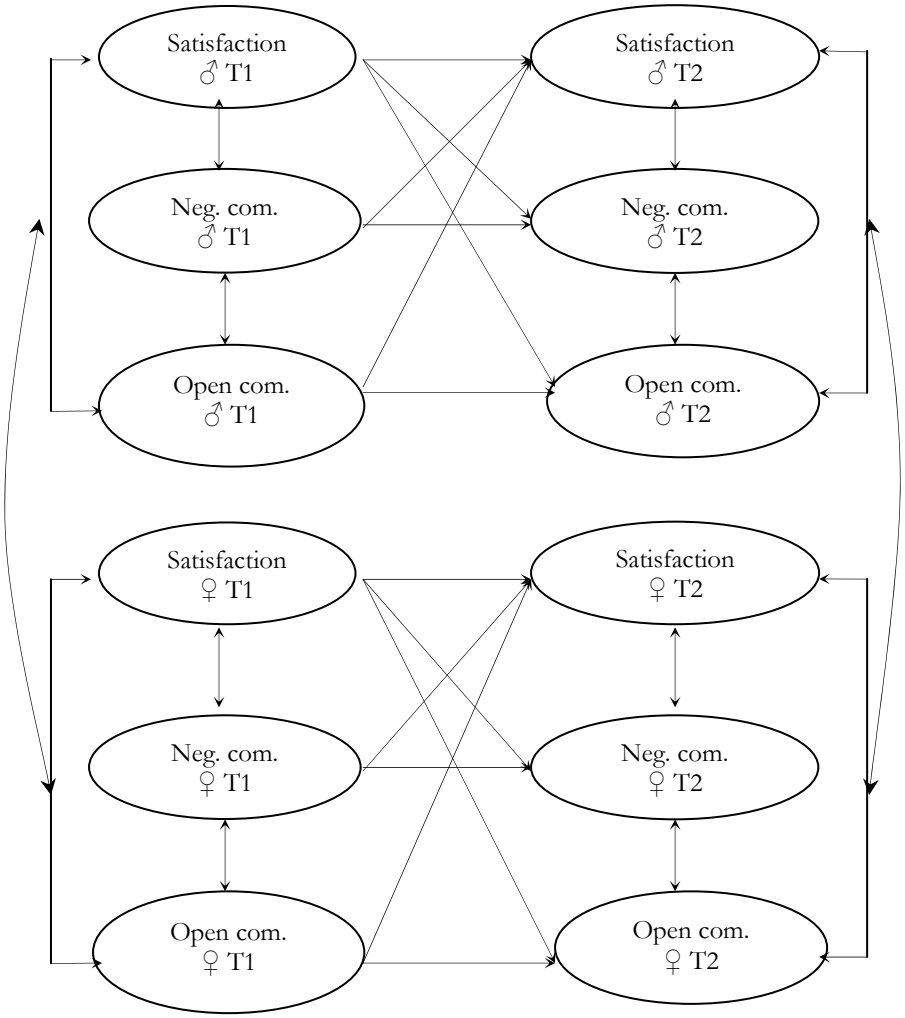
Understanding the longitudinal association between satisfaction and communication is also appealing as regards communication patterns such as "often talking about personal problems" and "often talking about things that happened during the day" for which there is cross-sectional evidence that this behavior is beneficial to partnership (Buunk & Nijskens, 1980; Kerkstra, 1985). In the present study, this communication style is referred to as 'open communication' and can be considered as the compound of two relational maintenance behaviors. The first behavior refers to marital partners talking to each other about things that happened during their day. This talk is considered as a type of instrumental and functional talk intended to sustain the relationship (Wood, 1993). Honeycutt and Wiemann (1999) provided support for the positive effect of this "daily event" talk on relationship satisfaction. Another behavior identified as a strategy to sustain the relationship is "openness" (Canary & Stafford, 1992). Canary, Stafford, and Semic (2002) assert that this "openness" strategy, which is defined as discussing the relationship and sharing thoughts and feelings about the

relationship, leads to greater satisfaction for marital partners and to the maintenance of the relationship (Weigel & Ballard-Reisch, 1999, 2001).

Behaviors labeled 'good' and 'bad' or 'positive' and 'negative' communication cannot be regarded as absolute but rather as context-specific qualities. The implicit assumption that good communication is open and honest, and hostile communication is indicative of a lack of communication skills, may be an expression of white, Western middle-class values (Coupland, Giles, & Wiemann, 1991). Moreover, not all 'bad' communication styles are equally harmful and not every 'lack' of openness necessarily indicates miscommunication (Brown & Rogers, 1991; Gottman & Krokoff, 1989).

Because the assumed longitudinal and reciprocal relationship between marital satisfaction and both negative and open communication remains elusive, our first research question addresses the degree to which open communication and negative communication can be seen as a predictor or an outcome of marital satisfaction. This question will be examined with help of crossed-lagged panel analysis. Because Meeks, Hendrick, and Hendrick (1998) assert that not only the actual communication *behavior* but also the *experience* of this behavior is important in understanding its effect on marital satisfaction, the perception of negative and open communication and not the overt behavior will be considered in this study. Our theoretical model is presented in Figure 5.1. For reasons of simplicity, two groups of relationships are excluded from the Figure: (1) the effect of control variables and (2) the correlations between husbands and wife's variables at each measurement point.

Figure 5.1
Conceptual Model for Long-Term Association Between Open and Negative Communication and Marital Satisfaction



Note: The curved arrow denotes the correlations between husbands and wives' variables

The second research question concerns the sex-specificity of the long-term association between communication and marital satisfaction. In fact, men and women may differ from one another in the degree to which they communicate openly or negatively. This idea is expressed in the so-called *different cultures* perspective (Mulac, Bradac, & Gibbons, 2001). It is a widespread view that marital communication may have different significance for both sexes as women tend to be more relationally-oriented than are their male counterparts (Acitelli, 1992; Goldsmith & Dun, 1997; Thompson & Walker, 1989; Weigel & Ballard-Reisch, 2001; Wood, 1993). Their greater sensitiveness to interpersonal problems and subtleties of communication is reflected in women's role as "relationship architects" (Wood, 1993). This focus on the intimate relationship may stimulate the use of communication behavior that positively contributes to marital partnership. For example it is found that women are more likely to talk about daily events and relationship experiences than men (Canary, Stafford, & Semic, 2002; Rubin, 1983; Weigel & Ballard-Reisch, 2001; Wood, 1993). They also tend to complain more about their partners being too little emotional intimate and too withdrawn (Gottman & Krokoff, 1989; Houck & Daniel, 1994; Rubin, 1983).

However, research evidence for these sex differences is mixed. Some authors found no or small sex differences indicating that men and women are not that different with regard to marital communication or, at least, that these differences might be exaggerated (Canary & Dindia, 1998; Dindia & Allen, 1992; Goldsmith & Dun, 1997; Wright, 1998). Burleson, Kunkel, Samter, and Werking (1996) developed the *same culture* perspective to state that similarities between the sexes far outweigh differences. With respect to Dutch couples, Kerkstra (1985) also showed that men and women did not differ in their perception of the marital communication as negative or open.

Whether or not sex differences are claimed may also be based on one's interpretation of small effects (Allen, 1998). For some researchers they are *important* whereas for others they are *not important enough* to call for differences. Because no conclusive findings are established for the Netherlands, it remains unclear to what degree sex differences in communication can be expected.

Besides, sex differences regarding the direction of the relationship between communication and satisfaction may also be elusive. There is some evidence to assume that, in comparison to men, women tend to experience

lower marital satisfaction because of their likely dissatisfaction with marital communication (Fincham & Bradbury, 1987(b); Houck & Daniel, 1994; Jacobson & Moore, 1981; Margolin, Hattem, John, & Yost, 1985). In contrast, the "motivational approach" of marital communication suggests that marital distressed women are more likely to perceive relational communication as more negative than do dissatisfied men (Denton, Burleson, & Sprenkle, 1994). Husbands' satisfaction, however, seems to be more strongly related to their *own* communication behavior than to the *marital* communication of both partners. Research indicates that husbands' communication behavior may improve when they are more satisfied with their relationship. So, men's capacity to communicate might be strongly associated with their experience of the marriage whereas for women this would be not the case (Noller, 1981).

Due to the mixed results with respect to sex differences in marital communication and because of the lack of longitudinal evidence for sex-specific directions of the link between communication and satisfaction, our expectations are tentative. Therefore, our second research question is whether the direction of the relation between satisfaction and communication is the same for both sexes, and whether open communication and negative communication play the same role for both men and women.

5.2. METHOD

5.2.1. Procedure and Sample

The research sample consists of married men and women participating in the longitudinal research project "Child-Rearing and Family in the Netherlands" (Gerris et al., 1992, 1993, 1998). Families were recruited using a multi-stage sampling method. In the first stage, a sample was taken of all Dutch municipalities distinguished by regional zone and degree of urbanization. In the second stage, a sample of children was taken in the selected municipalities. These children were selected in such a way that in each city as many boys as girls and as many children aged 9 to 12 as children aged 13 to 16 were chosen. These children as well as their parents were included in the research group. In 1990, this procedure resulted in a sample of 1829 families. The response ratio was 43 % (N = 788). Of the 656 families who

agreed in 1990 to participate in the second wave, 627 were contacted and 484 (77%) actually did participate in 1995. More technical details on the database can be found in Gerris et al. (1992; 1993; 1998). The data were gathered by means of structured interviews and questionnaires, completed by both the child and the parents. In order to establish a homogeneous research group, only first marriages in which both men and women have a Dutch nationality were selected. This selection resulted in a research group of 386 couples with children. In 1995, couples had been married for about 22 years. Husbands were 47.5 years, and wives were 45.0 years on average. Men reported higher levels of education than did women. One quarter of the male sample has a university degree, whereas for women this figure is approximately one out of eight. For husbands, 48% reported to have a middle low or low school degree whereas for women this is 61%. Sex differences also exist with regard to employment activities. Whereas only 2% of the men are homemakers or not involved in paid employment, more than one out of three women fall into these categories. Nine out of ten men are employed, but this holds only for six out of ten woman (57%). In comparison to men, women are situated more in the "unskilled jobs" category (13% women versus 2% men) and less in the "higher professions" group (11% women versus 18% men).

5.2.2. Measures

Our three measures of interest (1) marital satisfaction, (2) open communication, and (3) negative communication are based on three scales developed by Kerkstra (1985). The open and negative communication scales are inspired by system- and communication theory and are composed of items derived from the Primary Communication Inventory (Navran, 1967) and the Marital Communication Inventory (Bienvenu, 1970). The marital satisfaction and negative communication scale originally consisted of 9 items each; the open communication scale consisted of 6 items.

The satisfaction and the communication items were validated with the aim to develop concepts that are empirically and conceptually clearly separated from each other. In line with this aim, it was required that the resulting concepts were sufficiently reliable in terms of internal consistency. Using oblique factor-analytic rotation procedure, the relational structure

between the concepts was clarified. Items, which met the criterion of a weight of .40 or more on the factor they intended to represent and a weight of .20 or less on the other factors, were retained. This procedure yielded a clear-cut pattern of three concepts whereby each item loaded on only one corresponding factor. This factor solution was obtained for men and women in the first wave and was replicated exactly with the data of the second wave as well as in an independent sample of husbands and wives (see Chapter 4).

Marital satisfaction. To formulate the items of this scale, satisfaction with the relationship and/or the partner was used as the guiding principle (e.g., "Generally, I'm dissatisfied with the relationship with my partner" or "If I could choose again, I would choose the same partner"). The scale consists of seven 7-point Likert items, ranging from 1 = "not at all applicable" to 7 = "very applicable". The scores were added together so that a higher score indicates a more satisfied relationship. In 1990, *alpha* coefficient was .85 for women and .80 for men. In 1995, these values were .87 and .85 respectively.

Negative communication. Respondents were asked to indicate to what degree certain forms of negative communication are characteristic of their marital relationship (e.g., "My partner often blames me when we are quarreling" or "My partner and I interrupt each other a lot when we are talking together"). The scale consists of 7-point Likert items, ranging from 1 = "not at all applicable" to 7 = "very applicable". A higher score on the scale indicates more negative communication. For women the *alpha* reliability coefficient was .76 for 1990, and .80 for 1995. For men this coefficient was .81 and .83.

Open communication. This scale is measured by items indicating the degree to which personal feelings and experiences are shared (e.g., "I often talk to my partner about things we both interested in" or "I often talk to my partner about personal problems"). The scale consists of 7-point Likert items, ranging from 1 = "not at all applicable" to 7 = "very applicable". The *alpha* coefficient for women was .63 in 1990 and .73 in 1995. For men these coefficients were .66 and .68 respectively.

Control variables. Year of birth of the marital partners, marital duration and the educational level of both spouses were included as control variables because they could affect marital satisfaction as well as marital communica-

tion (Houck & Daniel, 1994; Noller & Feeney, 1994; White, 1983). Marital duration in 1990 and 1995 was indicated by the year of marriage. *Education* was measured in response to the question "What is your highest educational level?" Nine levels were considered ranging from (1) elementary school to (9) university education.

5.3. RESULTS

Descriptive Analysis

To compare mean scores on the three scales across time, paired-sample t-tests were performed for both men and women. This test indicates that there is a significant difference between the mean satisfaction observed in 1990 and in 1995, respectively $t = 2.49$, $p < .05$ for men ($M_{90} = 6.13$, $SD = 0.93$; $M_{95} = 6.02$, $SD = 1.00$) and $t = 3.30$, $p < .01$ for women ($M_{90} = 6.09$, $SD = 1.01$; $M_{95} = 5.92$, $SD = 1.09$), showing that the degree to which partners are satisfied with their marriage decreased slightly between 1990 and 1995. This finding is in line with recent studies on the course of marital satisfaction, showing a fairly gradually decline over the marital career (VanLanningham, Johnson, & Amato, 2001).[12] Furthermore, the mean score on the open communication scale for women in 1990 is significantly different from the score in 1995 ($t = -2.07$, $p < .05$; $M_{90} = 5.53$, $SD = 1.09$; $M_{95} = 5.65$, $SD = 1.09$). The perception of negative communication did not change over time, for women ($M_{90} = 2.69$, $SD = 1.03$; $M_{95} = 2.70$, $SD = 1.05$), or for men ($M_{90} = 2.73$, $SD = 1.09$; $M_{95} = 2.71$, $SD = 1.08$).

A comparison of the mean scores across sex shows that in 1990 as well as in 1995 women had a significantly higher score on open communication ($M_{90} = 5.53$, $SD = 1.09$; $M_{95} = 5.65$, $SD = 1.09$) than did men ($M_{90} = 5.06$, $SD = 1.13$; $M_{95} = 5.16$, $SD = 1.16$), respectively $t = -7.39$, $p < .0001$

[12] Until the recent published counterfindings of VanLanningham, Johnson and Amato (2001), the U-shaped pattern of marital satisfaction over the marital career was a long-standing premise (Glenn, 1990). However, the preponderance of evidence with respect to the U-curve is overshadowed by the methodological limitations associated with most previous research such as the use of cross-sectional designs. Using 17-years panel data from a nationally representative sample of married individuals, VanLanningham, Johnson and Amato (2001) conclude that marital happiness declines or flattens after a period of decline throughout the marital career.

and t = -7.56, p < .0001. The mean satisfaction and negative communication scores were not significantly different between men and women.

Structural Equation Model

Using LISREL 8.30 (Jöreskog & Sörbom, 1989, 1993), a cross-lagged panel analysis with open communication, negative communication and marital satisfaction was conducted jointly for husbands and wives. Cross-lagged panel analysis is a technique that provides more insight into antecedent-consequent relationships between two variables that might mutually influence each other.[13] In a first equation, the effect of A1 and B1 on A2 is estimated, and similarly the effect of A1 and B1 on B2 is estimated in a second equation. The standardized regression coefficients of A1 on B2 and of B1 on A2 can be compared with each other. The 'causal winner' is the relationship with the largest coefficient. Hence, the nature of the mutual relationship is interpreted on the basis of the cross-lagged relationship showing the highest coefficient. The advantage of the cross-lagged approach is that the stability effects between Time 1 and Time 2 are controlled when estimating the cross-lagged effects.

Given that two waves of data are available, we modeled a Two-Wave, Three-Variable model for husbands and wives simultaneously (Finkel, 1995). In this model, each variable at Time 2 is predicted by both its previous value at Time 1 and the other variables of interest. For the purpose of this study, variables at Time 1 only were allowed to affect one's own variables and not those of the partner at Time 2.

[13] Actually, this is a question about causality. A condition for causality is that the variable that causes an outcome is temporally prior to the variable that is affected (Scott, 1995). However, there is no consistent consensus on this issue. Some assert that causality happens at such a manner in people's mind that it is no longer observable in the temporal sequences of behavior. For example, there is a strong association between the birth of the first child and women leaving the labor market. Though, some only leave after the birth of the child whereas others already leave before the child arrives. Both behaviors result from anticipations and decisions that are made long before the actual behavior takes place. Therefore, temporal order is not always an indication for causality, demonstrating the vital importance of theory in causal suppositions (Nesselroade & Baltes, 1985; Taris, 2000; Willekens, 2001).

Variables in this analysis are latent concepts measured by manifest scale items. The use of latent variable analysis has the major advantage that biasing effects of measurement errors can be controlled (Campbell & Kenny, 1999). However, an important underlying issue of structural equation modeling is that of statistical power. When the sample size is too small or too many parameters have to be estimated, the statistical stability of the results may be doubtful (Mueller, 1996). In our study, the latter was the case. Using the individual items as indicators for each of the latent variables the number of parameters to be estimated is too large with respect to the sample size (N = 386). The number of parameters and the number of observations were in the proportion of 1 to 2, whereas generally criteria of at least 1 to 5 or even 1 to 10 or higher are preferred (Mueller, 1996). A technique to deal with this problem is item parceling. Instead of using the original items as indicators for latent variables, parcels are used. Parcels are combinations of subsets of items underlying a latent variable. Scores on parcels are computed by either summing or taking the mean of a subset of items. Item parceling must be used with care and under certain conditions. Bandalos and Finney (2001) have studied possible problems by using parcels as substitutes for the original items. Their finding is that "unidimensional factor structures of the latent constructs have been well established in other studies and parcels are formed within these factors" (Bandalos & Finney, 2001, p. 288). Given the unidimensionality of the scales (only items loading on their principal factor, no cross loadings) and the validity and reliability of our measurement instrument (see Chapter 4) it is considered sound to use item parceling. Therefore, for each construct, two parcels were computed as the mean score of a subset of items. For marital satisfaction, a parcel of four items and one of three items was made; for negative communication two parcels of each three items were retained, and for open communication a parcel of two items and a parcel consisting of the one remaining item were constructed. Theoretically, all parcels range from 1 to 7.

Using Confirmatory Factor Analysis (LISREL 8.30), the reliability and validity of the three latent constructs and their indicators (parcels) were demonstrated. Table 5.1 presents the standardized factor loadings and alpha coefficients for the three latent constructs for both sexes in 1990 as well as in 1995.

Table 5.1
Lambda's of the Measurement Model with 6 Manifest Variables and 3 Latent Factors of the DMSCQ, According to Sex and Year

	1990		1995	
Factor and indicators	Lambda Men	Lambda Women	Lambda Men	Lambda Women
Marit. Sat. (F1)	α = .82	α = .89	α = .86	α = .88
ms1	.82	.88	.87	.90
ms2	.84	.91	.87	.88
Neg. Com. (F2)	α = .81	α = .74	α = .80	α = .78
nc1	.83	.78	.85	.88
nc2	.81	.76	.78	.74
Open Com. (F3)	α = .68	α = .62	α = .71	α = .78
pc1	.85	.78	.87	.90
pc2	.59	.57	.64	.71

Note: Standardized coefficients, N = 386.
Marit. Sat. = marital satisfaction, Neg. Com. = negative communication, Open Com. = open communication

For the evaluation of this factor model (and the other models used below), two fit indices were considered: (1) the root mean square error of approximation (RMSEA), and (2) the comparative fit index (CFI). Models with a RMSEA value lower than .05 and a CFI value over .95 indicate an acceptable fit between model and data (Billiet & McClendon, 1998; Byrne, 1998; Hu & Bentler, 1999; Kline, 1998; Mueller, 1996). The model with df = 186 showed a χ^2-value of 295.70 with RMSEA = .039 and CFI = .99, indicating a very good fit.

In the next step, the measurement invariance of the three concepts across time and across sex was tested to be sure that it is allowed to compare latent variables across time and between husbands and wives. Measurement invariance on the item level was already established (see Chapter 4). Therefore, it is expected that the parcels also show measurement invariance. To verify this expectation, factor loadings (lambda's) between the manifest parcels and their latent construct at Time 1 were equated with the corresponding loadings at Time 2. The same principle was done with respect to husbands and wives.

This model (with equating the factor loadings of marital satisfaction, of negative communication and of open communication) showed a χ^2-value of 308.52 (*df* = 195) with RMSEA = .038 and CFI = .99, also indicating a very good fit. The increase in χ^2 was 12.82 (*df* = 9) with *p* = .177 showing that a factor model with equal factor loadings on comparable concepts leads to a non-significant increase of χ^2. Our conclusion is that the three concepts are invariant across time and across sex. Hence, for the next analyses, the involved factor loadings (lambdas) were constrained to be equal.

For the cross-lagged analysis, five variables were included as exogenous variables: marital duration, the age of both spouses, as well as their educational level. The covariance matrix of these parcels and the five control variables was used as input matrix for the analysis. Their correlations, means and standard deviations are shown in Table 5.2.

Due to the time span of five years, we did not expect error terms to be correlated over time and thus we did not define these terms. The endogenous variables of husband and wives were allowed to correlate at Time 1 as well as at Time 2. For the initial model, (see Figure 5.1) the control variables did not appear to show any significant relationship with the endogenous variables. For this reason these variables were excluded in the next analyses. Testing the cross-lagged model with the relationships as depicted in Figure 5.1, yields a χ^2-value of 344.96 with *df* = 218, RMSEA = .038 and CFI = .99, which fits very well. The majority of the cross-lagged effects were not significant. First, none of the female cross-lagged effects reached significance. Second, communication variables at Time 1 were not related to marital satisfaction at Time 2, for women, or for men. Only husbands' marital satisfaction at Time 1 predicted their perception of open communication at Time 2. Without the non-significant cross-lagged relationships, the χ^2-value equals 353.23 with *df* = 224, RMSEA = .038 and CFI = .99. The decrease in χ^2 equals 8.27, with *df* = 6 and *p* = .219, indicating that the omitted cross-lagged effects have a non-significant contribution in the cross-lagged model.

Table 5.2
Correlation Matrix of the Parcels of the Open and Negative Communication, and Marital Satisfaction Scales, and the Control Variables, According to Sex and Year [Women Beneath Diagonal, Men Above Diagonal]

	t1ms1	t1ms2	t1nc1	t1nc2	t1oc1	t1oc2	t2ms1	t2ms2	t2nc1	t2nc2	t2oc1	t2oc2	ym	yb	edu	M	SD
t1ms1	- -	.69 ***	-.42 ***	-.48 ***	.22 ***	.22 ***	.51 ***	.52 ***	-.33 ***	-.37 ***	.32 ***	.20 ***	.07	-.01	-.10 *	6.18	0.97
t1ms2	.80 ***	- -	-.41 ***	-.46 ***	.23 ***	.24 ***	.52 ***	.58 ***	-.31 ***	-.36 ***	.36 ***	.21 ***	.03	.06	-.11 *	6.07	1.07
t1nc1	-.44 ***	-.46 ***	- -	.68 ***	-.16 **	-.13 **	-.31 ***	-.33 ***	.54 ***	.52 ***	-.26 ***	-.11 ***	-.06	-.02	.07	2.80	1.19
t1nc2	-.43 ***	-.46 ***	.59 ***	- -	-.19 ***	-.15 **	-.32 ***	-.34 ***	.46 ***	.55 ***	-.33 ***	-.20 ***	-.07	-.02	.03	2.67	1.18
t1oc1	.38 ***	.37 ***	-.18 ***	-.19 ***	- -	.51 ***	.20 ***	.21 ***	-.05	-.10 *	.41 ***	.28 ***	-.06	.05	-.05	4.91	1.23
t1oc2	.30 ***	.34 ***	-.08	-.15 **	.45 ***	- -	.23 ***	.21 ***	-.09	-.16 **	.22 ***	.27 ***	-.01	.04	-.09	5.30	1.43
t2ms1	.52 ***	.54 ***	-.33 ***	-.32 ***	.28 ***	.17 ***	- -	.76 ***	-.56 ***	-.48 ***	.35 ***	.30 ***	.03	.04	-.10 *	6.07	1.00
t2ms2	.50 ***	.54 ***	-.36 ***	-.33 ***	.27 ***	.18 ***	.79 ***	- -	-.50 ***	-.46 ***	.38 ***	.30 ***	-.01	-.02	-.09	5.93	1.10
t2nc1	-.39 ***	-.44 ***	.58 ***	.46 ***	-.21 ***	-.07	-.63 ***	-.61 ***	- -	.70 ***	-.26 ***	-.15 **	-.10 *	-.06	.01	2.63	1.13
t2nc2	-.38 ***	-.37 ***	.44 ***	.48 ***	-.21 ***	-.08	-.48 ***	-.49 ***	.64 ***	- -	-.28 ***	-.15 **	-.05	-.07	-.02	2.79	1.19
t2oc1	.33 ***	.32 ***	-.21 ***	-.21 ***	.48 ***	.28 ***	.38 ***	.38 ***	-.35 ***	-.22 ***	- -	.55 ***	-.11 *	-.11 *	.02	5.02	1.25
t2oc2	.28 ***	.30 ***	-.23 ***	-.21 ***	.34 ***	.29 ***	.32 ***	.34 ***	-.25 ***	-.19 ***	.63 ***	- -	-.09	-.09	-.01	5.38	1.30
ym	.04	.05	-.13 *	-.13 *	.04	.06	-.02	-.01	-.02	-.03	.03	.02	- -	.62 ***	-.02	72.76	3.27
yb	.09	.10	-.06	-.10 *	.11 *	.11 *	-.00	.02	.00	-.02	.09	.06	.72 ***	- -	-.12 *	47.52	4.94
edu	-.08	-.10	.02	.02	.02	-.01	.02	-.03	-.02	.00	.05	.02	.03	-.16 **	- -	3.87	2.01
M	6.12	6.03	2.72	2.67	5.36	5.85	6.04	5.77	2.59	2.81	5.51	5.93	72.76	50.06	3.24		
SD	1.04	1.11	1.23	1.10	1.23	1.33	1.07	1.24	1.13	1.18	1.19	1.17	3.27	4.26	1.65		

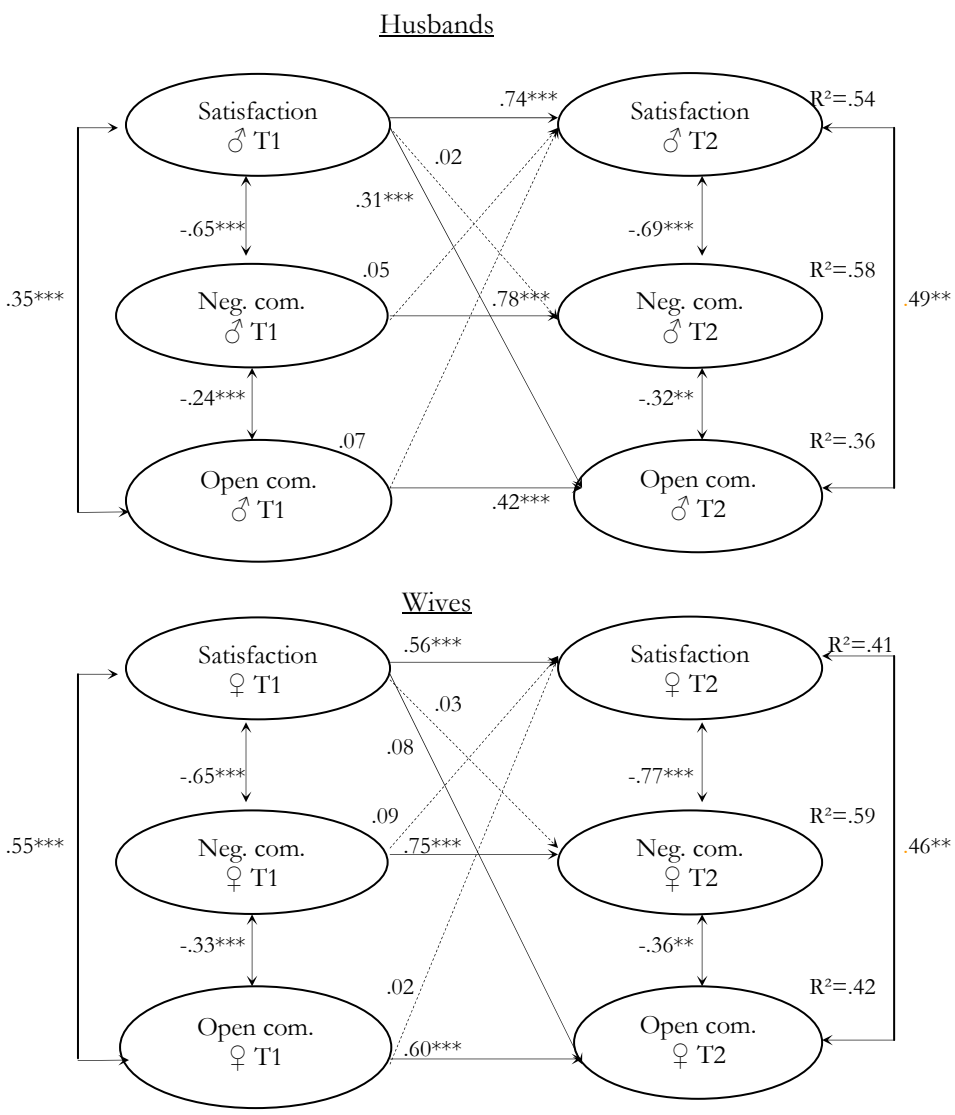
Note: t1 = wave 1, t2 = wave 2, ms = marital satisfaction, oc = open communication, nc = negative communication, ym = year of marriage, yb = year of birth, edu = educational level

*p < .05 ** p < .01 *** p < .001

To examine whether the cross-lagged relationship between marital satisfaction at Time 1 and open communication at Time 2 is different for men and women, a second model was tested. In this model the paths between marital satisfaction at Time 1 and open communication at Time 2 were initially left free. For this model, $\chi^2(223) = 351.98$. For the model with the two paths constrained to equality $\chi^2(224) = 360.26$, a significant increase of χ^2 with 8.28 and df = 1 and p = .004. This equality constraint apparently worsened our model. The restricted model was less successful in accounting for the observed relationships between the latent constructs. In other words, a sex difference exists with respect to the effect of marital satisfaction (Time 1) on open communication (Time 2). For husbands, marital satisfaction was positively related to their perception of open communication five years later, but this finding does not hold for women. The results are presented in Figure 5.2.

As can be seen from Figure 5.2, the correlations at Time 1 and Time 2 demonstrate for both husbands and wives strong negative associations between marital satisfaction and negative communication and significant positive associations between open communication and marital satisfaction. The relation between concurrent marital satisfaction and negative communication perception appears much stronger than their relationship across time. For both sexes, the cross-lagged effects between marital satisfaction and negative communication were not significant. However, our results support the hypothesis that husband's marital satisfaction is predictive of a change in open communication behavior. It appeared that satisfied husbands are more likely to share personal experiences over time and to talk about things that happened during the day. Wives' marital satisfaction was not predictive of their open communication.

Figure 5.2
Cross-Lagged Model for Open and Negative Communication and Marital Satisfaction



Note: Standardized Parameter Estimates.
*p < .05, **p < .01, ***p < .001

5.4. DISCUSSION

This study was designed to gain insight into the relationship between marital satisfaction and communication. Based on previous literature, it was unclear (1) whether marital satisfaction accounts for variation in marital communication more than communication leads to changes in marital satisfaction and (2) whether the cross-lagged relationships might be sex-specific.

Our major finding is that communication is not predictive of later marital satisfaction. Spouses appear to be no more or less satisfied during a five-years interval when they communicate more openly or less negatively with their partner. This finding holds for both husbands and wives.

More evidence was obtained for the assumption that satisfaction predicts open communication. Moreover, this effect was found to be sex-specific. Marital satisfaction was positively related to husbands' but not wives' open communication. Along with the failure of husbands' open communication to predict later marital satisfaction, it is suggested that satisfaction potentially influences open communication.

When considering negative communication, we found no support for assuming any cross-lagged relationship with marital satisfaction. The non-significance of the cross-lagged effects between marital satisfaction and negative communication may indicate that marital satisfaction is more consistently associated with current negative communication perception than with later or prior assessments. Therefore, no longitudinal evidence was obtained for the motivational approach on the basis of which we expected a negative cross-lagged effect of marital satisfaction on negative communication for women (Denton, Burleson, & Sprenkle, 1994). This finding may account for the fact that the motivational approach is possibly a short-term model or that women's perception of negative communication is a reflection of their marital satisfaction rather than a predictor or outcome (and vice versa).

A striking finding is that satisfied husbands were more likely to share personal experiences with their partner. Thus, men linked their marital experiences with their own communication behavior and not with the communication behavior of their partner. The latter becomes clear from the fact that men's satisfaction was not related with their perception of negative communication, which focuses on the partner communication.

This finding can supplement earlier findings such as those of Noller (1981) and Gottman and Porterfield (1981). They demonstrated that dissatisfied husbands fare poorly in decoding and encoding emotional nonverbal messages of their partners, abilities that appear to be relationship-specific instead of being a general trait.

It is interesting to speculate about why men's supported "capacity" or "willingness" to share personal experiences (open communication) should decrease with declining satisfaction, whereas this finding did not hold for women. At first sight, this result may be remarkable from the assumption that women are more relationally-oriented than men (Acitelli, 1992). If men are not so relationally attuned, why does their marital satisfaction predict their communication over time? An explanation can be found in an earlier finding of Antill (1983) with respect to femininity in relationships. The author provided evidence for the overwhelming importance of femininity on the part of both husband and wife for explaining each other's marital happiness. In our study, it is suggested that in satisfied relationships, men more closely approach a stereotypical feminine communication style. The higher female scores on open communication in our study lend support to this interpretation. That might also be the reason why this trend does not show up in women's marital satisfaction and their perception of open communication nor in men's marital satisfaction and their perception of negative communication because both communication measures focus on women. Indeed, one can expect that women were already characterized by a more relational orientation.

Assuming that the aforementioned explanations are correct, our results may be consistent with the possibility that wives' marital satisfaction may simply reflect their communication behavior, whereas husbands' marital satisfaction may actually affect their communication behavior. Men in satisfied relationships may develop communication behavior that their wives already tend to use to a larger extent. It seems that a marital relationship might benefit not only from partner's pre-existing communication behavior but also from communication behavior developed over the marital life course.

Limitations

Because of some limitations of this study, our findings must be put into perspective. First, the question arises whether the amount of time between the two measurement waves was too lengthy to account for other associations. Longitudinal studies on marital satisfaction and attributions or maintenance behaviors are conducted typically within shorter time intervals (e.g., Fincham & Bradbury, 1987(b); Weigel & Ballard-Reisch, 2001). Because the strength of lagged effects in longitudinal studies depends on the period between two consecutive waves, this is a very difficult issue to deal with (Finkel, 1995). Unfortunately, there is no directive for the optimal lag for marital satisfaction and communication to affect each other. Moreover, to reach stronger conclusions regarding our variables of interest, at least three measurement waves should be used. Therefore, future studies should attempt to confirm our results using different time frames and several waves of data.

A second point worth mentioning is the specific character of the sample. The current project deals with relatively highly educated men and women, who are on average 46 years old and have adolescent children. At the second measurement point, couples were married for about 22 years. Perhaps different cross-lagged relationships between satisfaction and communication could be found when examined in a sample of younger couples or less educated individuals. Moreover, it is possible not only to find different cross-lagged effects but also different sex-specific effects when examining other samples. That is why a definite causal and sex-specific interpretation of our findings is unwarranted at this stage. Because no established longitudinal findings are at our disposal, future research is needed to confirm our results over time.

Conclusion

Despite these limitations, our results are relevant. From a therapeutic point of view, it is helpful to know that changing marital communication by itself may not be as important for improving marital satisfaction as previously thought. As Holmes (2000) emphasizes, 'good' communication cannot eradicate, for example, incompatibility between the spouses. Therefore, a therapeutic goal orientated towards the marital process or communication might appear ineffective if it is opposed to spouse's interest. Theoretically,

the study makes a valuable contribution to our understanding of relationship satisfaction and communication because of the longitudinal approach in combination with a focus on sex. Parott (2000) asserts that emotions, and thus satisfaction, can involve changes in thinking or behavior and, therefore, can affect social interaction and relationships. To be (dis)satisfied with one's partner and relationship might play a considerable role in men's communication behavior within marriage. For women, the perception of her own and her partner's communication behavior may be a reflection of her marital satisfaction rather than a predictor or outcome. These findings are relevant because the role of communication in marriage has moved from the periphery to the centre (Fitzpatrick, 1988). This 'changed role' of communication is a result of the prominent position of the emotional function of partnership in society's view of marriage on the one hand, and contemporary society's absence of fixed and clear external rules for partnership on the other hand.

Three directions for future research in this specific topic are recommended. First, the antecedent-consequent relationships between marital satisfaction and marital communication need to be corroborated in different spousal samples. Second, the sex-specific nature of these cross-lagged relationships has to be investigated. Third, and more profound, is the analysis of how marital satisfaction is built up over time. In other words, when communication is not an important building block in established marriages, is this also true in newlywed couples? And, which other factors contribute to marital satisfaction in each phase of marital relationships?

6. Effects of Spousal Economic and Cultural Characteristics on Marital Satisfaction

6.1. INTRODUCTION

Do women's economic resources have a harmful effect on spousal marital satisfaction and are there cultural conditions moderating this effect? These questions are explored in the present study. The main purpose is to examine the influence of husbands' and wives' socioeconomic position and cultural orientation on their satisfaction with marriage. Since both are inherently connected, attention is particularly paid to the interaction between economic and cultural factors. In fact, the increase in women's educational level and labor force participation that the past 40 years witnessed, are not only economical but also cultural in nature (De Graaf & Vermeulen, 1997; Lye & Biblarz, 1993; Rogers & Amato, 2000; South, 2001). The shift in women's social roles is accompanied by other social transformations, among which are changing gender role attitudes. We are moving towards an androgynous egalitarianism emphasizing the similarities rather than the differences in sex roles (Davis, 1984; Thornton, Alwin, & Camburn, 1983). Moreover, individualization processes cause individuals to think less traditionally about family life, no longer attaching primary importance to marital life and raising children (Peters & Gerris, 1995). In the present study, it is argued that these cultural changes need to be taken into account when examining the relationship between women's economic position and spousal marital satisfaction. Disregarding the cultural aspect, as is often the case in studies examining the effect of spousal economic resources on marriage, might partially account for inconsistent findings regarding economic variables and marital satisfaction.

Besides, previous studies have been primarily done in the United States. Accordingly, relatively little is known about this subject in Western Europe and particularly in the Netherlands. Recent findings on the covariates of divorce among Dutch couples suggest that the effect of wives' employment is not the same for all marriages and women (Kalmijn, De Graaf, & Poortman, 2004). Whether outside employment gets translated

into marital instability depends on wives' emancipatory values. It was demonstrated that women's employment increases the chance of divorce for traditional but not for more liberal women. Therefore, it is reasonable to also consider this hypothesis with respect to Dutch couples' marital satisfaction.

Moreover, because prior studies on the association between marital satisfaction and economic and cultural aspects mostly relied upon cross-sectional designs, we cannot tell if *changes* in these variables are also associated with *changes* in spousal marital satisfaction. This issue invites further investigation.

Using panel data of Dutch first-married couples, our aim is to incorporate cultural variables in tandem with economic proxies in order to examine their separate and joint effects on marital satisfaction. This question is addressed cross-sectionally as well as longitudinally.

6.2. THEORETICAL AND EMPIRICAL BACKGROUND

The importance of differentiated sex roles for a stable marital system is a longstanding and influential tradition in the social science literature. Talcott Parsons already emphasized this idea in the postwar period and later on Becker elaborated the same theme in his economic theory of marriage. The converging view is that marital satisfaction is higher to the extent that wives have fewer labor market resources and husbands have more resources (Ono, 1998).

Economic approaches, such as rational choice and social exchange theories, emphasize the efficiency and productivity of a sex-segregated arrangement. According to Becker (1981), the major gain to marriage lies in spousal mutual dependence arising out of their specialized functions as breadwinner and homemaker. Therefore, dual earner couples may develop a less rewarding marriage as both sexes become less specialized and less powerful in a domain that is important for the other. This non-specialization and imbalance of the marital relationship may result in lower satisfaction with marriage (Brennan, Barnett, & Gareis, 2001; Scanzoni, 1979).

Psychosocial approaches rather emphasize the change in options and needs that couples are confronted with when wives dispose of more resources. Proponents assert that the greater availability of women's

resources may reduce the costs of leaving a distressed marriage (Davis, 1984). More economically independent wives might be less motivated to work out their marital problems whereas their husbands may feel less restricted or guilty to leave a relationship in which their wives are able to support themselves (Kalmijn, De Graaf & Poortman, 2004; Peatsch, Bala, Bertrand & Glennon, 2004).

The above ideas are commonly translated in the so-called wife's *independence hypothesis* and husband's *income hypothesis* (Ono, 1998). The former states that women's labor market resources are likely to put marriage under stress whereas the latter hypothesis reflects the opposite for men. Husbands' income hypothesis assumes higher gains for marriage to the degree that husbands have more economic resources. Both arguments have received widespread attention among sociologists as well as economists in explaining recent family trends (see Oppenheimer, 1997; 2001).

However, research yields inconsistent results with respect to the effect of women's resources on marital experiences. Even though studies in the sixties (Axelson, 1963; Orden & Bradburn, 1969) confirmed the poorer marital satisfaction of couples where the wife is employed, more recent studies provide mixed support (see Oppenheimer, 1997). Some studies fail to demonstrate a relationship (Glenn & Weaver, 1978) whereas others obtain evidence that wives' labor market participation reduces husbands' but not their own marital satisfaction (Booth, Johnson, Whyte, & Edwards, 1984; Greenstein, 1990; Kessler & McRae, 1982). The latter may hold because wives' employment is not only driven by financial reasons but also serves other goals such as personal development and improved social status for women. When considering wives' occupation or earnings in specific, Vannoy & Philliber (1992) failed to demonstrate a significant association with husbands or wives' marital satisfaction. Using panel data, Rogers (1999) found no support for the idea that a change in wives income is related to changes in marital discord.

However, wife's independence hypothesis needs to be considered in light of men's breadwinner status. As long as this status is unchallenged by wives' employment, men's marital satisfaction is higher than in case their breadwinner's position is threatened (Crowley, 1998). Hence, relative earning power rather than women's employment as such appears to be the differentiating factor. Moreover, other findings do not support the disrup-

tive effect of wives incomes on marriage. A recent study of Gupta, Smock, and Manning (2004) on the correlates of non-residential fatherhood in the U.S. demonstrate that the probability of non-residence decreased to the degree that both fathers' and mothers' incomes increased, suggesting the stabilizing effects of women's income on family life.

Other evidence contrary to the independence hypothesis concerns wife's educational level. Higher levels of education may be associated with better relationship skills and hence higher marital satisfaction. Indeed, Locksley (1982) found that higher educated wives are happier with their marriage than those who are less educated. Kurdek (1993) reported similar results for his 5-year longitudinal sample of newlywed couples. Whyte (1990), in contrast, showed that women's education was unrelated to marital satisfaction. However, in this respect it is interesting to note that in the Netherlands the likelihood of divorce is higher among better rather than among lower educated women, questioning the validity of the American hypothesis for the Dutch context (Kalmijn, de Graaf, & Poortman, 2004). It remains to be seen whether this finding is also true with respect to marital satisfaction.

These mixed findings lead us to conclude that the wife's independence hypothesis is contentious. More consistent support is found for the male income hypothesis (Ono, 1998; Whyte, 1990). Vannoy and Philliber (1992) demonstrate that employed wives are more satisfied with their marriage when their husbands are higher educated. However, if women are not employed, their marital satisfaction appears to be unrelated to men's education. Both findings are consistent with the interpretation that educated husbands may be better prepared for developing an egalitarian marriage. Although not entirely indicative, studies on marital instability also demonstrate that husbands' poorer economic position in terms of income and education is linked to a higher risk of marital dissolution (Ono, 1998).

Economic factors might be accompanied by subjective appraisals, which may also affect the marital relationship (Mugenda, Hira, & Fanslow, 1990). A review of White and Rogers (2000) suggests that subjective evaluations of one's economic position are more strongly related to marital outcomes than measures such as income and employment. Conger et al. (1990) reported similar results and concluded that subjective assessments of one's economic situation are important determinants of marital satisfaction,

rather than the material component of income or status. In a similar vein, Mugenda et al. (1990) identified satisfaction with the financial status as an important mechanism through which socioeconomic factors relate to quality of life.

Missing from the above studies, however, is the consideration of cultural conditions. The inconsistent support provided for the independence hypothesis may be due to the lack of attention paid to circumstances under which spousal resources are more or less beneficial for marital satisfaction. One of these conditions may be cultural in nature. Indeed, the values that spouses hold towards sex roles and family life, for example, are a cultural reflection of the shift in women's and men's social roles. However, values in a sociological sense of indicating culturally defined standards serving as broad guidelines for social living, are seldom allowed in economic approaches (Macionis, 1997; Moors, 2001). Nonetheless, studies indicate the relevance of these values. Vannoy and Philliber (1992), for example, even identify gender role identities and role expectations as a primary explanation for marital experiences.

Considering cultural conditions may put economic effects on marriage in a proper perspective, the more so since previous work has been shown that the effect of gender attitudes on marital satisfaction is gender-specific. Women with a nontraditional view on gender roles tend to experience lower marital satisfaction whereas for men the reverse finding is true (Amato & Booth, 1995; Lye & Biblarz, 1993). Husbands' egalitarian attitudes might be advantageous for couples because those husbands tend do more household labor and are more supportive for their employed wives (Ferree, 1991; Suitor, 1991; Vannoy-Hiller & Philliber, 1989). Peters and Gerris (1995) also demonstrated that the marital relationship of spouses being strongly orientated on traditional family values such as being married and living for your family, is more satisfying.

Despite the fact that economic and cultural explanations go hand in hand, they are not always perfectly correlated. Although it may be more acceptable for egalitarian than for traditional or familial spouses that wives work outside, traditional women may also work outside because of financial reasons while nontraditional women decide to stay home because of the difficult combination of employment and family care (Kalmijn, De Graaf,

& Poortman, 2004). Hence, there are reasons to assume that cultural and economic characteristics interact in their effect on marital satisfaction.

Studies on this interaction hypothesis with respect to marital satisfaction are exceptional. Nonetheless, one study dealing with this issue tended to find moderating effects. Vannoy and Philliber (1992) demonstrate that husbands' gender role attitudes are more important for marital satisfaction when the wife is employed than when she is not. These authors did not examine, however, to what degree wives' employment has different effects when holding more or less traditional attitudes. Hence, their finding justifies further investigation on the interaction between cultural characteristics and economic aspects in their association with marital satisfaction. This interaction assumption is also supported in research on marital stability. Divorce studies suggest that the negative effects of women's economic resources are conditional on cultural values with more negative or no effects for women holding traditional gender ideologies (Greenstein, 1990; Kalmijn, De Graaf & Poortman, 2004).

However, no attempt is made to examine the interaction between women's labor market resources and spouses' familialism. Familialism refers to the degree to which the private sphere of family and marital life is considered important (Peters & Gerris, 1995). In general, this orientation is associated with traditionalism and economic inequality. However, in the Netherlands the connection between familialism and traditionalism has become weaker during the nineties, indicating that the Dutch cultural context of familialism has lost most of its traditional nature (Peters & Gerris, 1995). In this way, the question arises whether the effect of women's labor market resources on marital satisfaction might be contingent upon spouses' familial orientation.

Besides their interaction, we are also interested in the effects of economic and cultural factors across time. However, economic and cultural explanations are seldom addressed jointly in a longitudinal design. Nonetheless, marital satisfaction can be better understood when it is compared with earlier and later satisfaction. In this way, the issue is directed towards the factors that contribute to an increase or decrease in marital satisfaction over time. Because previous work mostly relied upon cross-sectional designs it remains unclear to what degree economic and cultural variables as

well as their change predict later marital satisfaction when considered jointly. This issue needs further exploration.

6.3. PRESENT STUDY AND HYPOTHESES

As became clear from the above review, previous findings regarding spousal economic resources and marital satisfaction did not provide straightforward conclusions. We argued that the failure to include the cultural dimension in this discussion might explain some of the contrasting findings. Cultural variables not only need to be taken into account when evaluating the effect of spousal economic position on the marital satisfaction experienced, they also need to be linked to cultural variables to examine the circumstances in which the association between economic indicators and marital satisfaction may become more or less positive. Therefore, this study addresses the above issue by examining how economic and cultural indicators – separately and jointly – are related to spousal marital satisfaction. It is firstly hypothesized that cultural variables have an independent effect beyond the economic variables on the satisfaction reported by husbands and wives. Second, we reassess the association between women's economic resources and spousal marital satisfaction by considering this relationship as contingent upon spouses' cultural orientations. We examine this topic using a Dutch sample of married couples that were followed during a five-years interval (2 measurement points). Our analyses are conducted separately for men and women.

A first model (Model 1) tests the independence hypothesis for women and the income hypothesis for men. It can be expected that couples in which the wife has more economic resources experience lower marital satisfaction than couples in which the wife has fewer economic resources. Conversely, we hypothesize that couples in which the husband has more economic resources experience higher marital satisfaction than couples in which the husband has fewer economic resources.

A second model (Model 2) examines the first model supplemented with husbands and wives' satisfaction with their income to spend. We test the hypothesis that spouses, who are more satisfied with their financial situation, are also more likely to be satisfied with their relationship.

Third, we test the additional effect of cultural orientations (Model 3). Spouses' attitudes towards both sex roles and traditional family values will be considered. In general, it is hypothesized that nontraditional role attitudes are negatively associated with spousal marital satisfaction. More specifically, we anticipate that this hypothesis holds primarily for women's attitudes whereas men's liberal attitudes may positively affect spousal marital satisfaction. Regarding familialism, however, it can be expected that both husbands and wives are more satisfied with their marriage when endorsing family values. Based on the study of Vannoy and Philliber (1992) we expect that cultural variables will have a significant effect on spouses' marital satisfaction independent of their economic resources.

Fourth, the interaction hypothesis is examined by linking wives' economic characteristics with the cultural variables of *both* husbands and wives (Model 4). Whether wives are employed or not is considered in function of both spouses' orientations towards traditional family values and sex roles. The same is done using wives' educational level as indicator of their economic position. Husbands' economic characteristics are not related to spouses' cultural orientations because this is not our main point of attention. To capture the employment status (employed or not) of the couple, we also included the interaction term between wives and husbands' employment.

Because research has shown that family income (Conger et al., 1990), parental divorce (Amato, 1996) and young age at marriage (Holman, 2001) are negatively related to marital satisfaction, the following control variables will be included in the analysis: age of the spouses, number of years married, parental divorce, net family income and number of children.

6.4. STUDY DESIGN

We report on three studies. Using hierarchical regression analysis, we examine in a first study the additional effects of cultural characteristics to economic characteristics in understanding husbands and wives' marital satisfaction. Subsequently we test whether the interaction between economic and cultural characteristics add supplementary value to this model. It is also examined whether female employment is less disruptive for

spousal marital satisfaction in case husbands are unemployed. We use the first wave data of a national panel study of couples.

In a second study we replicate the hierarchical models in a subset of the larger sample used in Study 1. Specifically, we perform our analyses on those couples that remain married through the two waves. The potential selective character of the panel attrition may result in different results within the two samples at the first measurement point. The findings from this second study must inform us about the specificity of the both-waves participants. This information must put the results of the third study in the proper perspective.

In the third study, we assess spousal marital satisfaction five years after the first measurement. It is analyzed whether changes in economic and cultural variables relate to changes in marital satisfaction. Comparing these results with those of the first and the second study must inform us about the variables that are specifically associated with concurrent and later marital satisfaction.

6.5. METHOD

6.5.1. Procedure and Sample

The research sample consists of married men and women participating in the longitudinal research project "Child-Rearing and family in the Netherlands". In 1990 and 1995 the same family members (mother, father and target child) provided information about similar sets of measures. Families were recruited using a multi-stage sampling method. In a first stage, a sample was taken of all Dutch municipalities distinguished by regional zone and degree of urbanization. In a second stage, a sample of children was taken in the selected municipalities. The children were selected in such a way that in each city as many boys as girls and as many children aged 9 to 12 as children aged 13 to 16 were chosen. In 1990 this procedure resulted in a sample of 1829 families. The response ratio was 43% (N = 788). As pursued, the sample was representative regarding regional zone and degree of urbanization. Of the 656 families who agreed in 1990 to participate in the second wave, 627 were contacted and 484 (77%) actually did participate in 1995. This sample proved to be still representative for regional zone but

not for degree of urbanization. More technical details on the database can be found in Gerris et al. (1992; 1993; 1998). The data were gathered by means of structured interviews and questionnaires.

Because the original sample includes married couples - both first and higher order marriages - as well as one-parent households and households with children of whom the parents are not married, we restrict our research sample to first marriages because of the potentially different social processes involved when considering higher-order marriages. This selection resulted in a research group of 646 couples in the first wave and 386 couples in the second wave. At the first measurement point, the couples are averagely married for 17 years. Husbands age 42 years and wives are on average 40 years old. 95% of the husbands in the sample are employed whereas this only holds for 47% of women. The majority of the employed women work part-time. Hence, the couples included in our study primarily represent single earner- and main-earner households. Median monthly family income is between 1250 and 1625 €. About a quarter of the male sample enjoyed higher vocational or university education, while for women this figure was approximately one out of eight.

Using logistic regression, we examined the selective character of the panel attrition between the first and the second wave. The inclusion in "both waves" versus "first wave" was regressed on all variables of interest in this study. Two variables significantly predicted the likelihood of being included in one of the two groups (χ^2 (19) = 28.94, p = .07): husbands' sex role attitudes and their income satisfaction. Husbands who participate at both waves are more satisfied with the net family income (p < .05) and slightly more traditional in their sex role attitudes (p = .055).

6.5.2. Measures

Education was measured in response to the question "What is your highest educational level?" Nine levels were considered ranging from 1 = "elementary school" to 9 = "university education".

Employment status of husbands and wives was dichotomized with 0 = not employed and 1 = employed.

Income position is indicated by the net family income, measured in Dutch guilders. One guilder is approximately 0.45 Euro. Seven income groups

were distinguished: 1 = "1100-1600", 2 = "1600-1800", 3 = "1800-2100", 4 = "2100-2500", 5 = "2500-3250", 6 = "3250-4500" and 7 = "more than 4500".

Income satisfaction is indicated by the response to the question "Are you satisfied with the income you can spend freely?". This is a 5-point item scale rated from 1 = "more than enough" to 5 = "much too little".

Attitude towards sex roles measures the degree to which the respondent reports to value a traditional division of roles and tasks between males and females in household, career, child-rearing and education. This orientation is measured with a scale consisting of 6 items. The response scale is a 5-point Likert scale ranging from 1 = "totally agree" to 5 = "totally disagree" (e.g., "A woman is better suited to raise small children than a man"). After recoding, higher scores indicate higher valuation of this orientation. Cronbach's alpha is .78 for men and .83 for women.

The *Traditional family values* scale measures the degree to which the respondent reports to value traditional characteristics of the family as a living form. It is a 4-item scale with 1= "extremely important" to 5= "unimportant" (e.g., "To live for your family"). After recoding, higher scores indicate higher valuation of these family values. Internal consistency for this scale is .76 for men and .77 for women.

The construction of the "Attitudes towards sex roles" and "Traditional family values"-scales is reported in Gerris et al. (1992, 1993).

Marital satisfaction is measured by the Marital Satisfaction scale as described and validated in Chapter 4. For formulating the items, satisfaction with the relationship and/or the partner was used as the guiding principle (e.g., "Generally, I'm dissatisfied with the relationship with my partner" or "If I could choose again, I would choose the same partner"). The scale consists of seven 7-point Likert items, ranging from 1 = "not at all applicable" to 7 = "very applicable". For women the alpha reliability coefficient is .85 and .87 for 1990 and 1995 respectively. For men this coefficient is .80 and .85.

Control variables: Because they could affect marital satisfaction as well as our independent variables of interest, age of the marital partners (year of birth), number of years married (year of marriage), number of children and parental divorce were included as control variables. The year in which the couple married indicates marital duration in 1990 and 1995. Marital dura-

tion and age together represent a proxy for emotional maturity, which may be crucial for developing satisfying relationships.

6.6. RESULTS

Before running the hierarchical regression analyses, correlations of the variables of interest are displayed in Table 6.1. Figures are presented for the sample at Time 1.

Using paired t-tests, differences across time and sex are examined. The between-sex results for the initial sample indicate that men are significantly more educated than women (t = 8.85, p < .001). Results demonstrate that both spouses are equally satisfied with the financial situation of the family. Regarding gender role attitudes, it appears that husbands advocate a more traditional orientation than women (t = 10.13, p < .001), which might be due to the advantaged position of men in a sex-segregated role pattern (van Yperen, 1990). Women, however, score higher on traditional family values (t = -4.78, p < .001), lending support to the stronger relational and familial orientation of women. Considering spousal marital satisfaction, a paired-sample t-test indicates that women and men are equally satisfied at the first measurement point.

Within-sex differences across time reveal that both men (t = 2.13, p < .05) and women (t = 3.30, p < .001) become less satisfied during the period of the study. T-tests demonstrate that spousal orientation towards sex roles (Men, t = 2.37, p < .05; Women, t = 4.75, p < .001) and family values (Men, t = 3.34, p < .001; Women, t = 3.31, p < .001) becomes less traditional. A comparison of the mean satisfaction with the family income shows that both men (t = - 4.00, p < .001) and women (t = -2.71, p < .01) had become less satisfied during the period under study.

Table 6.1
Correlation Matrix of Spousal Economic and Cultural Variables and Marital Satisfaction at Time 1, Men [Above Diagonal] and Women [Below Diagonal]

	1	2	3	4	5	6	7	8	9	10	11
	Marital satisfaction	Year of marriage	Number of children	Parental divorce	Education	Year birth	Income	Income dissatisfaction	Familialism	Sex role traditional.	Employment
1	/	.05	.01	-.00	-.14*	.02	-.07	.02	.24***	.05	-.01
2	.07	/	-.13***	.02	.01	.63***	-.04	-.02	-.03	-.10**	.11**
3	.04	-.13***	/	-.03	.06	-.15***	.03	-.01	.05	.11**	.02
4	.02	-.01	-.02	/	-.06	-.09*	.00	-.00	-.01	-.11**	-.06
5	-.08*	.04	-.02	-.05	/	-.11*	.57***	-.24***	-.17***	-.21***	.11**
6	.12**	.69***	-.15***	-.01	-.08*	/	-.06	-.02	-.01	-.11**	.20***
7	.01	-.04	.03	-.00	.40***	-.06	/	-.45***	-.13***	-.29***	.20***
8	-.11**	.00	.06	.02	-.22***	-.01	-.46***	/	.03	.11**	-.19***
9	.27***	-.06	.13***	.02	-.15***	-.02	-.13***	.03	/	.21***	-.06
10	.00	-.13***	.08*	.05	-.29***	-.10**	-.23***	.09*	.20***	/	-.06
11	.00	.05	-.14***	-.05	.20***	.04	.27***	-.15***	-.04	-.25***	/

Note: *p < .05 ** p < .01 *** p < .001, Employment, 1=yes, 2=no.

The correlational analysis presented in Table 6.1, clearly demonstrates the interrelation between economic and cultural factors. For both sexes, negative associations are found between education and familialism as well as between education and sex role traditionalism. The same conclusion can be drawn using income instead of education. From Table 6.1 it also become clear that familialism and sex role traditionalism are positively correlated, suggesting that familialism in our sample reflects a rather traditional orientation. This would contrast the earlier statements made in the introduction that familialism increasingly looses its 'traditional' character in the Netherlands.

Study 1

Using the data of the first measurement wave, separate hierarchical regression analyses were conducted for men and women. In order to reduce the problem of multicollinearity, raw scores on all the variables of interest were mean-centered (Jacard, Turussi , & Wan, 1990). Because in none of the models, control variables had a significant effect, their results will not be presented in the Tables.

For both husbands and wives we found that despite the significant effect of female education, the model including both spouses' economic characteristics was not significant. Adding men and women's satisfaction with their income free to spend to our model, it becomes clear from Table 6.2 that husbands' satisfaction is negatively related to both spouses' educational level but not associated with spousal financial satisfaction. This result contrasts the findings for the female model. Wives are more satisfied with their marriage to the degree that they are lower educated and more satisfied with the financial situation. Women's employment does not seem to make any difference for the marital satisfaction experienced by the spouses.

Table 6.2
Regression of Marital Satisfaction on Economic and Cultural Variables, (Un)Standardized Coefficients, Study 1

	Men		Women		
	Model 2	Model 3	Model 2	Model 3	Model 4
Socioeconomic variables					
Education, H	-.12 *	-.10 †	-.01	-.01	-.00
	(-.06)	(-.05)	(-.00)	(-.01)	(-.00)
Education, W	-.10 *	-.10 *	-.11 *	-.11 *	-.10 *
	(-.06)	(-.06)	(-.07)	(-.07)	(-.07)
Employment, H	.01	.04	.07	.08	.06
	(.05)	(.18)	(.35)	(.42)	(.32)
Employment, W	-.03	-.04	.00	-.02	-.02
	(-.05)	(-.08)	(.00)	(-.04)	(-.05)
Family income	.03	.05	-.01	.01	.00
	(.02)	(.04)	(-.01)	(.01)	(.00)
Income dissatisfaction, H	.02	.03	.06	.01	.00
	(.02)	(.04)	(.07)	(.02)	(.00)
Income dissatisfaction, W	-.05	-.06	-.15 *	-.11	-.10
	(-.05)	(-.07)	(-.17)	(-.12)	(-.12)
Role and family orientations					
Role traditionalism, H		-.07		-.12 *	-.12 *
		(-.09)		(-.18)	(-.18)
Role traditionalism, W		-.03		-.01	-.01
		(-.05)		(-.01)	(-.01)
Familialism, H		.20 ***		.07	.06
		(.27)		(.10)	(.09)
Familialism, W		.18 ***		.27 ***	.27 ***
		(.25)		(.42)	(.42)
Employment, W* Familialism, H					.09 *
					(.24)
Employment, W* Employment, H					.10 *
					(1.06)
F	1.53	4.52 ***	1.93 *	4.82 ***	4.90 ***
N	584	563	586	564	564
R^2	.03	.12	.04	.13	.15

Note: † p < .10 *p < .05 ** p < .01 *** p < .001

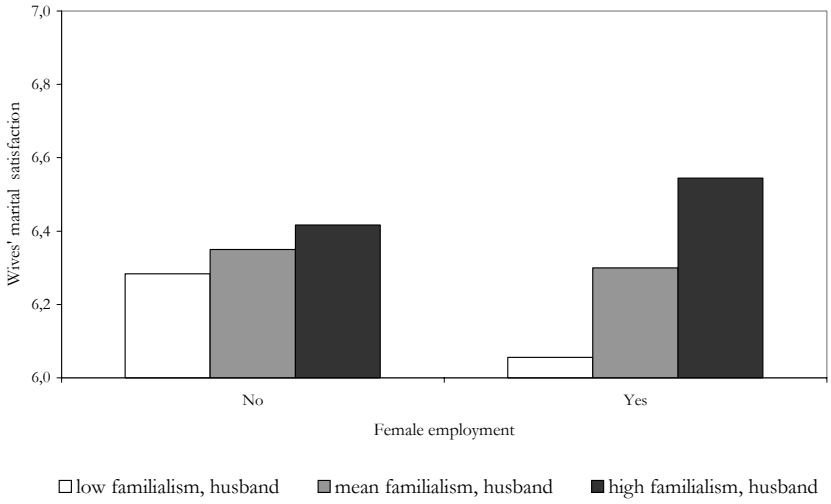
Adding cultural characteristics to the economic model, our results show that men are more satisfied when their wives are lower educated. This finding supports the independence hypothesis. Moreover, it appears that men report higher satisfaction when they and their wives both endorse family values such as "being married" and "to live for your family" (also labeled familialism). Comparing this model to the previous model, we see that the effect of husbands' education is less significant, showing that the negative effect of husbands' educational level is partially based on the fact that those men endorse less traditional family values. More or less conservative attitudes towards sex roles do not seem to differentiate between more or less satisfied husbands.

Women's satisfaction, however, was found to be dependent on their husbands' sex role attitudes. The more traditional husbands are oriented towards these roles, the more likely wives report to be dissatisfied with their marriage. Besides, women also appear to be more dissatisfied with their marriage the higher their educational level is and the less importance they attach to traditional family values. Comparing this model to the prior economic model, the effect of women's income dissatisfaction is no longer significant. Apparently, this is due to association between income satisfaction and husbands' sex role attitudes. Indeed, the less conservative men are, the more women are satisfied with the financial situation of the family.

In a final step, we evaluated the significance of the interaction effects. For the male model, it appears that none of the interaction terms meaningfully add to a model already comprising economic and cultural characteristics. For the female model, in contrast, the interactions between women's employment and their husbands' employment as well as between women's employment and their husbands' traditional family orientation explain significant more variance than a model including only the main effects. The effect of women's employment on their own marital satisfaction is much more positive when their husbands are employed as well. Moreover, women's employment has more positive effects on wives' marital satisfaction to the extent that husbands are stronger orientated towards familialism. More specifically, our analysis indicates that for every unit that husbands' familialism changes, the slope of women's marital satisfaction on women's employment increases by 0.24 units. Comparing this model to the model without interaction terms, we see that adding the

interaction effects do not reduce the effect of the other variables. In Figure 6.1 the interaction effect between wives' employment and husbands' traditional family values is visually presented.[14]

Figure 6.1
Visual Presentation of the Interaction Effect Between Female Employment and Husbands' Familialism on Wives' Marital Satisfaction



Study 2

In this study, we aim to replicate the theoretical model of Study 1 in a smaller sub-sample of husbands and wives of whom information was gathered at a second measurement point as well. We attempt to examine the stability of our results and to evaluate the degree to which potential deviating findings are due to the selective panel attrition or rather to the smaller sample size in which effects become less easily significant. This information is necessarily to evaluate the results from the third study. If it appears that the results of the sub-sample at Time 1 are similar to those of the larger

[14] A 'low' score on familialism is defined as one standard deviation below the mean and a 'high' score on familialism is defined as one standard deviation above the mean.

sample at Time 1, than our conclusions about marital satisfaction change may not be biased because of the selective panel attrition.

As in Study 1, the economic model was not found significant despite the negative effect of women's educational level on spouses' marital satisfaction (see Table 6.3). Including women and men's financial satisfaction, the models were not significant either. However, for both men and women it can be seen that the same variables that were significant in Study 1 are also significant at .10 level in this study. Moreover, parameter estimates do not show great differences and have the same directions in both studies.

Adding the cultural variables to the model, both the male and the female model are acceptable. For men, the same conclusion as that of the first study can be drawn. The more husbands and wives adopt traditional family values, the higher the marital satisfaction reported by men.

In accordance with the results of Study 1, we found meaningful associations between wives' marital satisfaction and their educational level, their husbands' sex role attitudes and their own traditional family orientation. Besides, Table 6.4 also shows a significant correlation with husbands' family orientation. To the extent that both spouses endorse traditional values such as "being married" and "living for your family", the more satisfied women are with their marriage.

Comparable to Study 1, the defined interaction terms were not related to husbands' satisfaction. However, the two interaction effects that were significant for women in the initial sample were also found to be meaningful in this study. Indeed, the effect of women's employment on their own marital satisfaction is more positive to the extent that their husbands endorse more traditional family values. Moreover, their employment is also more positive when husbands themselves are employed. The latter effect was significant at the .10 level.

It can therefore be concluded that the smaller sub-sample, which was followed at two points in time, is a relatively good reflection of the initial larger sample. The lower significance of the effects might be probably due to the smaller sample size.

Table 6.3
Regression of Marital Satisfaction on Economic and Cultural Variables, (Un)Standardized Coefficients, Study 2

	Men		Women		
	Model 2	Model 3	Model 2	Model 3	Model 4
Socioeconomic variables					
Education, H	-.12 †	-.10	-.05	-.03	-.03
	(-.05)	(-.04)	(-.02)	(-.02)	(-.01)
Education, W	-.11 †	-.11 †	-.11 †	-.13 †	-.13 *
	(-.06)	(-.06)	(-.07)	(-.08)	(-.08)
Employment, H	.02	.03	.04	.06	.06
	(.10)	(.16)	(.21)	(.32)	(.18)
Employment, W	-.03	-.03	-.04	-.05	-.05
	(-.05)	(-.05)	(-.08)	(-.10)	(-.10)
Family income	.06	.06	.05	.05	.05
	(.04)	(.04)	(.04)	(.04)	(.03)
Income dissatisfaction, H	.04	.02	.11	.01	.01
	(.04)	(.02)	(.12)	(.02)	(.01)
Income dissatisfaction, W	-.04	-.03	-.17 †	-.07	-.07
	(-.04)	(-.03)	(-.18)	(-.08)	(-.09)
Role and family orientations					
Role traditionalism, H		-.09		-.14 *	-.14 *
		(-.12)		(-.21)	(-.21)
Role traditionalism, W		-.01		-.03	-.03
		(-.02)		(-.05)	(-.05)
Familialism, H		.19 ***		.11 *	.11 *
		(.23)		(.14)	(.14)
Familialism, W		.20 ***		.29 ***	.29 ***
		(.27)		(.43)	(.43)
Employment, W* Familialism, H					.10 *
					(.26)
Employment, W* Employment, H					.09 †
					(.94)
F	1.14	3.02 ***	1.16	3.43 ***	3.41 ***
R^2	.04	.13	.04	.15	.16
N	360	353	359	352	352

Note: † p < .10 *p < .05 ** p < .01 *** p < .001

Study 3

In this study we are interested in the question whether changes in economic and cultural variables, result in an increase or decrease in subsequent marital satisfaction (Time 2). Therefore, satisfaction scores at Time 2 are regressed on the change in independent variables between Time 1 and Time 2. Changes in interaction variables were not taken into account because of the difficult and complex interpretation.

To measure changes in variables a difference score between Time 2 and Time 1 was computed. Rogossa (1995, p. 11) asserts that, "with only two observations the difference score […] is a natural estimate of the amount of true change, […] regardless of the form of the growth curve". He showed that the difference score is quite reliable under a wide range of moderate true score correlations.[15] However, because the magnitude and direction of change across time largely depends on the initial score, it is recommended to control for the initial scores that make up the difference score (Rogossa, 1995; Taris, 2000).[16] With respect to the employment status of men and women, the change between T1 and T2 is indicated by dummy variables. The reference category is 'spouses who are not employed at both T1 and T2'. Because the initial score of women's employment (1 = yes, 0 = no) is already included in the definition of the dummy variable indicating

[15] The use of a difference score as indicator for the degree of change is subject to much criticism (Taris, 2000). Particularly, the difference between two scores would be less reliable than the initial scores on the variables of which it is composed (Plewis, 1985). The higher the correlation between two measurements of the same variable, the less reliable the difference should be. Rogossa (1995), however, opposes to this critic and demonstrates that the difference score does extremely well when true change exists. In most examples used to show the low reliability of the difference score it appears that "[…] all individuals are growing at nearly the same rate which translates into almost no individual differences in true change […], and therefore […]the difference score cannot be expected to detect them" (Rogossa, 1995, p. 12).

[16] If this score is very low or very high, it is not likely that respondents move towards even lower or even higher scores. This is referred to as the *floor*-effect, respectively *ceiling*-effect (Rogossa, 1995; Taris, 2000). Moreover, these "extreme" respondents may also be more sensitive for stimuli to increase, respectively decrease their score. Thus, respondents with high scores tend to report lower scores in a follow-up round and vice versa. This is called the "regression effect" or "regression to the mean".

the (un)changed employment status between T1 and T2, the dummy variable at T1 for women's employment is not included in the model.

The idea of controlling for the initial score is applied to the assessment of change in the dependent variable as well. Hence, change in marital satisfaction is predicted controlling for marital satisfaction at Time 1 (Taris, 2000).

We pass through the same stages as in the previous studies. The control (not presented) and economic variables at Time 1 as well as the change in these variables between Time 1 and Time 2 are entered in the first step of the analysis. Spouse's marital satisfaction score at Time 1 is also included in this first step. In the second step, spousal financial satisfaction and the shift in financial satisfaction are added to the model. In the third step, the model is complemented with the cultural variables of Time 1 as well as their change between Time 1 and Time 2. The results of our analysis are presented in Table 6.4.

Let us first consider husbands' satisfaction with marriage. As Table 6.4 shows, couple's economic resources, in terms of net family income, negatively predict husbands' marital satisfaction five years later. Moreover, our results indicate that husbands' emphasis on traditional family values is positively associated with their subsequent marital satisfaction. Men, who become more traditionally oriented towards family values over time, also become more satisfied with their marriage.

Considering wives' marital outcomes, our analysis show that a change in wives' satisfaction is related to their husbands' experience of parental divorce. It was found that wives become more dissatisfied with their marriage over time in case the parents of their husbands ever separated.

Besides, our analysis demonstrates that wives' employment affects their marital satisfaction across time. In comparison to women who are unemployed at both measurement points, it appears that women who are employed at T1 but unemployed at T2 report lower marital satisfaction. Hence, the loss of work negatively affects women's perception of marriage.

Rather than being affected by the family income (see husbands' marital satisfaction), wives become less satisfied with their marriage when they are less satisfied with the family income and when this dissatisfaction becomes worse during time.

Table 6.4
Regression of Marital Satisfaction at Time 2 on the Difference Effects of Spousal Economic and Cultural Variables, (Un)Standardized Coefficients

	Men			Women		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Marital satisfaction (T1)	.59 ***	.56 ***	.50 ***	.62 ***	.56 ***	.50 ***
	(.63)	(.61)	(.54)	(.66)	(.60)	(.54)
Background variables						
Parental divorce, H	.02	-.00	.03	-.13 **	-.13 **	-.13 **
	(.05)	(-.01)	(.07)	(-.36)	(-.40)	(-.37)
Parental divorce, W	.05	.05	.04	-.04	-.04	-.03
	(.13)	(.15)	(.13)	(-.12)	(-.13)	(-.09)
Socioeconomic variables						
Education, H	.12	.14 *	.13	.03 .	.06	.03
	(.06)	(.07)	(.07)	(.02)	(.03)	(.02)
Education, W	.07	.08	.05	.04	.03	.00
	(.04)	(.05)	(.03)	(.03)	(.02)	(.00)
Family income (T1)	-.18 *	-.29 **	-.24 *	-.00	-.14	-.17
	(-.13)	(-.22)	(-.18)	(-.00)	(-.12)	(-.14)
Wife employed at both T1 and T2	.11	.13	.12	-.03	-.02	-.05
	(.22)	(.25)	(.24)	-.07)	(-.04)	(-.11)
Wife employed at T1 and not T2	.06	.10	.09	-.13 *	-.12 *	-.12 *
	(.19)	(.36)	(.32)	(-.47)	(-.47)	(-.46)
Wife employed at T2 but not at T1	.08	.06	.05	.01	-.02	-.03
	(.19)	(.17)	(.13)	(.01)	(-.06)	(-.07)
Husband employed at both T1 and T2	-.00	-.03	-.08	-.08	-.05	-.15
	(-.01)	(-.08)	(-.27)	(-.27)	(-.19)	(-.54)
Husband employed at T1 and not T2	-.07	-.09	-.13	-.12	-.09	-.16
	(-.26)	(-.33)	(-.46)	(-.48)	(-.38)	(-.68)
Husband employed at T2 but not at T1	.05	.04	.01	.04	.02	-.00
	(.88)	(.57)	(.12)	(.83)	(.32)	(-.02)
Difference in family income	-.03	-.09	-.06	.01	-.03	-.03
	(-.03)	(-.08)	(-.06)	(.01)	(-.04)	(-.03)
Income dissatisfaction, W (T1)		-.05	-.02		-.25 **	-.25 **
		(-.05)	(-.03)		(-.31)	(-.31)
Income dissatisfaction, H (T1)		-.07	-.06		.06	.00
		(-.07)	(-.07)		(.08)	(.00)
Difference in income dissatisfaction, W		-.01	-.01		-.18 **	-.20 **
		(-.01)	(-.01)		(-.21)	(-.24)
Difference in income dissatisfaction, H		-.05	-.07		-.03	-.04
		(-.05)	(-.07)		(-.04)	(-.04)

	Men			Women		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Table 6.4 (continued)						
Role and family orientations						
Role traditionalism, H (T1)			-.04 (-.05)			-.19 (-.31)
Role traditionalism, W (T1)			-.04 (-.07)			-.03 (-.05)
Familialism, H (T1)			.21 ** (.26)			.08 (.12)
Familialism, W (T1)			.03 (.04)			.18 ** (.30)
Difference in role traditionalism, H			.08 (.12)			.05 (.09)
Difference in role traditionalism, W			.05 (.08)			-.04 (-.07)
Difference in familialism, H			.15 * (.20)			.03 (.04)
Difference in familialism, W			.11 † (.15)			.19 ** (.29)
F	8.40 ***	6.09 ***	4.97 ***	10.66 ***	7.26 ***	6.81 ***
R^2	.35	.36	.40	.41	.40	.48
N	298	263	252	299	263	252

Note: Familialism refers to a traditional family orientation
*p < .05 ** p < .01 *** p < .001

Including cultural variables to the model (Model 3), Table 6.4 shows that husbands' traditional orientation towards sex roles at T1 causes women to be less satisfied with marriage throughout time. Moreover, if women attach great importance to traditional family values and put greater stress on these values during the five-years time interval, their marital satisfaction significantly increases.

6.7. CONCLUSION AND DISCUSSION

The aim of this study was to assess the relative influence of economic and cultural characteristics in understanding spousal marital satisfaction. This question was addressed cross-sectionally as well as longitudinally.

With respect to economic variables, our study demonstrates that wives' educational level significantly affects spousal marital satisfaction.

Both husbands and wives tend to be less satisfied with their marriage when women are better educated. This effect is not overruled when taking into account that higher educated wives are more likely to adopt less traditional attitudes towards sex roles and family values. Hence, our results lend support to the independence hypothesis stating that women's labor market resources are not beneficial for marriage. However, our findings contrast with empirical (American) literature in which it is demonstrated that better educated women are more satisfied because of their greater interpersonal skills. Although they cannot be used interchangeably, it is striking to note that a recent study on divorce in the Netherlands also shows that Dutch women's education significantly increases their divorce risk (Kalmijn, de Graaf, & Poortman, 2004). Why do Dutch higher educated women report lower marital satisfaction and apparently have a higher divorce risk? Although the inclusion of attitudes towards sex roles and family values did not change the significance of women's education, it might be assumed that in some way the broader cultural and more emancipatory orientation of these women explains our findings.

However, in the long-term analysis wives' employment and not their educational level appeared to be a significant determinant. It was found that compared to those who where unemployed both at T1 and T2, wives report lower subsequent marital satisfaction when becoming unemployed between T1 and T2. However, no significant differences exist between women who were employed at both measurement points and those who were not, suggesting that loosing one's job and not employment as such, yields negative consequences for women's well-being in marriage. The explanation for this negative effect might be sought in the adaptation to a new unpaid labor situation and the negative consequences with which it is associated (e.g. less social contacts, no personal income etc.).

Our study also shows that men experience a greater decrease in marital satisfaction when belonging to a higher income family. This contrasts with the idea that it is more difficult within lower social strata for adequately performing marital roles (Lewis & Spanier, 1979; Ono, 1998). The explanation for our finding is not clear-cut. One indication may be found in the correlational analysis. It appears that wives belonging to higher income families are better educated and hold more nontraditional sex role and family orientations. The latter, in particular, negatively affect spousal marital

satisfaction. Hence, the broader cultural orientation of women in higher income families, not fully captured in this study, might explain the negative effect.

In contrast to husbands' marital satisfaction over time, it appears, that wives' change in satisfaction is stronger related to their contentment with the income than with the income as such. We found that the more women are satisfied with couple's financial situation and to the extent that this financial satisfaction increases over time, women report higher marital satisfaction. It is interesting to investigate in future research why men' s marital satisfaction over time is more closely tied up to the absolute family income whereas women's marital satisfaction is more associated with relative income. Indeed, for women, the impact of income seems to depend on (changeable) standards and/or social comparison levels.

Nonetheless, based on the cross-sectional as well as the longitudinal analyses, evidence was obtained for the relevance of economic variables in understanding spousal marital satisfaction. Particularly with respect to changes in marital satisfaction, economic characteristics may not be overlooked.

In addition, our study clearly shows the importance of spousal cultural orientations with respect to sex roles and family values. As regards family values, for men, it appears that the more both spouses stress the importance of "being married" or "to live for your family", the higher their marital satisfaction reported. For women, though, not their husbands but only their own appraisal of these family values results in higher satisfaction. This could be explained by the motivation of these spouses to invest in family life. Kalmijn and Jansen (2000) have found that people with traditional family values more often engage in activities that make them dependent on a family. These investments may be rewarding for both spouses. The finding that one's family orientation primarily affects one's own marital satisfaction (and not that of the other spouse) may point toward cognitive dissonance. Indeed, it is more congruent for traditional spouses to be happy with their marriage and to idealize their partnership because their marital relationship has great salience in their identity hierarchy (Stryker, 1980). The converse may also hold. Because they are happily married for a relatively long time, spouses changed attitudes towards a more traditional family orientation. People may learn to value characteristics that are appro-

priate to their conditions of life. Moreover, one can suggest that traditional orientations still offer a rewarding security because expectations are clearly defined (Lye & Biblarz, 1993).

Nevertheless, regarding sex role attitudes, the latter reasoning does not hold. In the cross-sectional analyses, we found that a less traditional sex role attitude advocated by husbands has a positive effect on their wives' marital satisfaction. Women's role attitudes, however, are not meaningful related neither to their husbands' nor to their own marital satisfaction. These findings lead us to suggest that women's expectations for more gender equality do not put current marriage under pressure. Rather the alternative idea is supported. If men with less traditional attitudes towards sex roles positively affect their wives' satisfaction and are equally satisfied than men with more traditional attitudes, it may be suggested that men may relieve the stress in marriage by supporting gender equal attitudes. This hardly comes as a surprise as changes in men's lives towards more gender egalitarianism essentially refer to a pro-family attitude. These findings are in line with the conclusions of Amato and Booth (1995). These authors demonstrated that husbands themselves become more satisfied with their marriages when their views on gender roles become less traditional.

An important finding of our study is that cultural orientations also moderate the effect of women's employment on marital satisfaction. More specifically, employed women feel more satisfied with their marriage when their husband put stronger emphasis on traditional family values. Or to put it differently, husbands' traditional family orientation provides a context that is more compatible with women's outside employment. This might be due to the earlier mentioned family investment motivation of these husbands.

The importance of cultural orientations is further strengthened when considering marital satisfaction over time. Spouse's increase in marital satisfaction is related to his/her family orientation as well as the strengthening of this orientation during the five years under study. Moreover, husbands' egalitarian sex role attitudes also enhance their wives' subsequent marital satisfaction. Thus men's cultural flexibility with respect to gender roles is not only a significant factor in contemporary wives' satisfaction but also in wives' marital satisfaction over time. However, no interaction effects were found between spousal attitudes towards sex roles and women's labor

market resources, indicating that the above-mentioned importance of husbands' role attitudes do not vary according to their wives' employment status.

While the present research has focused on the consequences of economic and cultural variables on marital satisfaction, it is important to note that marital satisfaction may also exert an influence on spousal cultural orientations and economic position. Cross-lagged models are appropriate means to handle this sort of questions but at present not frequently applied. Exception is Amato and Booth (1995) who demonstrated that sex role attitudes influence marital satisfaction rather than the other way around.

Some limitations of this study require comment. First, this study is limited by the constraints of the sample. We are dealing with established first marriages with children. As a result, the sample is composed of individuals who have chosen for at least two traditional characteristics of family life: marriage and children. Therefore, we evaluated whether the spouses included in our sample deviate from the Dutch population in their orientation towards traditional family values. Based on longitudinal data of the national project 'Sociaal-culturele ontwikkelingen in Nederland [Sociocultural Developments in the Netherlands]' (SOCON), it appears that our research sample even scored lower on the traditional family values-scale than the respondents of the SOCON study (Peters & Felling, 2000). Hence, we can reasonably assume that our sample is not strongly biased on their orientation towards familialism. Second, the average marital duration at the start of the panel study is 17 years, which means that our research group represents 'marital survivors'. It is recommended to replicate our findings in a sample of couples without children as well as couples married for longer and shorter time periods. A following limitation concerns the two measurement points. As we have only two time observations, we can provide some information about change over time, but the design surely has its limitations. Therefore, replications of the study over at least three measurement points are advisable in order to gain deeper insight in social change. Fourth, it should be noted that in spite of their relevance, economic and cultural variables explained a small amount of the variance in concurrent marital satisfaction. Other characteristics, such as couples' interaction behavior, may be more important in gaining insight into spousal satisfaction in a later marital stage. Fifth, additional economic and cultural

proxies need to be included. For example, income differences between men and women, dimensions of economic pressure as well as values of self-actualization have to be distinguished in future research. Sixth, shorter or longer time intervals between successive measurement points might yield different economic and cultural covariates. More longitudinal research on this specific theme is needed to depict time-specific covariates. Seventh, we demonstrated as far as possible that the sample used at the two measurement points does not show great differences with the total sample of the first measurement point with respect to the subject under study. Nonetheless, it was shown that husbands who participate at both waves are more satisfied with the net family income and slightly more traditional in their sex role attitudes. The former may account for the fact that husbands' income satisfaction is not a strong differentiating factor. Given the consistent importance of the latter variable in the female analyses, it might be assumed that the slight difference between the two samples has not strongly biased our results.

Attention to these constraints in coming studies must enable family researchers to draw more specific conclusions about the relative significance of economic and cultural variables in comprehending marital satisfaction (over time).

7. Social Position, Gender Role Identity and Marital Satisfaction

7.1. INTRODUCTION

Bestsellers such as "Men are from Mars, women are from Venus" (Gray, 1992) and "Why men don't listen and women can't read maps" (Pease, 1999) are only two examples of popular literature that supports the widely held idea that men and women are different. The assumed 'stable' sex disparities in this literature, strongly contrast the widely held view of gender theorists that gender is a social product that individuals (re)produce in the context of daily life (Walker, 1999; West & Zimmerman, 1987). The meaning of 'being masculine' and 'being feminine' not only depends on broad transformations in the larger society such as changing attitudes towards sex roles, but also on more proximal contexts in which men and women act such as higher and lower social strata.

In the current juncture characterized by blurring sex roles, some speculate that the stereotypical ways of being man or woman are becoming counterproductive (McDowell, 2001). Women increasingly enter the male area of paid labor whereas men are increasingly expected to be more nurturant and involved with their families (Duncombe & Marsden, 1993; Yogev & Brett, 1985). Consequently, expressiveness, which reflects stereotypical feminine qualities such as kindness and understanding, as well as instrumentality, which reflects stereotypical masculine qualities such as agency, independence and self-confidence, may both become qualities that men and women use in meeting new social circumstances (Vannoy-Hiller & Philliber, 1989). However, research by Perry-Jenkins and Folk (1994) suggests that differences might appear between social groups in the degree of acceptance of new sex role qualities as well as in the linkages between these qualities and marital outcomes. A similar line of reasoning holds with respect to family stage. Couples tend to become more traditional in their role behavior after the birth of children, suggesting that sex role stereotypes and role expectations are affecting couples differently (Thompson & Walker, 1989).

The present study relates to this issue. Specifically, it is examined whether and to what degree expressiveness and instrumentality, hereafter also referred to as gender role identity, are important qualities in understanding spouses' marital satisfaction at different marital stages as well as in different socioeconomic contexts. It is argued that marriages may not equally benefit from stereotypical sex role qualities early in the relationship and later on. Moreover, since gender and class strongly interact, the importance of expressiveness and instrumentality in explaining husbands' and wives' emotional life may differ according their income and educational level.

7.2. EMPIRICAL BACKGROUND

Several studies suggest that expressiveness rather than instrumentality is beneficial for partners' marital satisfaction (Antill, 1983; Kurdek & Schmitt, 1986; Lamke, Sollie, Durbin, & Fitzpatrick, 1994; Peterson, Baucom, Elliott, & Farr, 1989). Although initially designated *femininity*, the new label *expressiveness* is more linked to the fact that the representing qualities refer to personal qualities that both sexes can incorporate in one's self, rather than reflecting a much broader phenomenon of stereotypical femininity (Spence, 1984; 1993). Moreover, the label better fits the idea that female traits are also important for men. Lamke, Sollie, Durbin, and Fitzpatrick (1994) for example, found support for a positive effect of husbands' femininity on their marital quality but found no effects for women. In contrast, Antill (1983) has demonstrated that both husbands and wives appear to be happiest when they define themselves in expressive terms, and when they are paired with highly feminine partners. Ever since the publication of Antill (1983) it is widely assumed that expressiveness is beneficial for partnership. Recent research suggests that two processes are responsible for this association (Garrido & Acitelli, 1999; Miller, Caughlin, & Huston, 2003). On the one hand, expressiveness leads spouses to engage in more affectionate behavior; on the other hand, it results in a more idealized image of one's partner.

However, the conclusion that husbands and wives' expressiveness may be the most important ingredient in marital happiness may be unwarrantedly. Some studies found support for the idea that masculinity, and specifi-

cally wives' masculinity, is positively related to spouses' marital quality (Aube & Norcliffe, 1995; Parmelee, 1987; Peterson et al., 1989). This result might be explained by the fact that characteristics such as independence and assertiveness are highly valued in an achievement-oriented society. Spouses who endorse these traits may develop positive self-concepts and consequently higher well being and satisfaction (Aube & Norcliffe, 1995).

However, the above claims require further investigation, first and foremost because the majority of literature is American. Therefore, the question arises to what extent these findings can be replicated within a Dutch sample of couples. This question is particularly relevant since Hofstede (1998) has identified the United States as a masculine and the Netherlands as a feminine nation. Masculinity stands for a society with a stereotypical orientation on men being assertive and success-orientated and with women being tender and concerned with the quality of life. In feminine countries, however, both men and women are supposed to have the latter qualities. At the individual level, this would imply that 'being feminine' for a man is less undesirable than in masculine countries. Brinkgreve (1989) indeed asserts that in the Netherlands qualities such as care, and commitment are no longer reserved for women but are increasingly expected to be virtues also acquired by men. Given the identified 'emotionalisation' in partnership and the gender specificity in this respect (see Chapter 1), it can be expected that femininity, particularly on part of the husband, also positively contributes to spousal marital satisfaction in the Netherlands and to women's satisfaction in particular.

Second, more attention needs to be paid to the specific demands and expectations that couples may encounter in different stages of their partnership. Previous research has already speculated that the importance of instrumentality and expressiveness might not play a similar role early in the relationship or in a later stage (Antill, 1983; Parmelee, 1987). Antill (1983) has shown that wife's feminine characteristics tend to be more important early in the relationship, whereas husband's feminine characteristics appear to be more important later. In the early stage of the relationship husbands' satisfaction seem to depend on their wives filling in the traditional female role (Antill, 1983). In a later stage, especially when more children may be present, wives' marital satisfaction should become more dependent on their husbands' ability and willingness to perform female nurturance tasks. This

argumentation contrasts the findings of Parmelee (1987). She speculated that wives' instrumentality rather than expressiveness is important early in the relationship because in this stage interaction patterns have still to be negotiated whereas responsibilities are minimal. Wives' expressiveness should become more important later. Particularly with the arrival of children, which is often associated with a move towards more traditional sex roles, wives' expressiveness may be essential. However, these speculations have not been systematically tested and might suggest that spouses not only have to adapt to new partnership expectations but also to expectations associated with specific family life stages. In this study this issue is examined. Specifically, we deal with couples having adolescent children. During this marital stage, husbands and wives are confronted with demands for increased autonomy from their children. When these demands are reciprocated by more expressive or instrumental oriented parents, different outcomes might be expected, for instance, with respect to marital satisfaction. Responding to autonomy claims with expressiveness might result in less pressure and conflict and thus in more satisfaction, as opposed to more instrumentalistic responses (Kreppner, 2000). Although the importance of displaying supportiveness and affection during the adolescent years, Holmbeck, Paikoff, and Brooks-Gunn (1995) also denote the benefits of maintaining consistent effective discipline and control, which may be more strongly tied up with instrumental qualities. Hence, it is not clear to what degree marital partners benefit from instrumental and expressive qualities in this specific stage.

A third issue worth investigating in this respect relates to the context-specificity of our subject under study. Implicit in most literature on gender role identity and marital satisfaction is the assumption that this relationship is invariant across social groups. However, there are reasons for speculating otherwise. Expressiveness and instrumentality are both qualities that may be socially steered. Assuming this, the meaning and standards of being a man or woman is not uniformly adhered to in distinct social levels. Precisely because the female and male identity is acted out in different social contexts, these contexts may not only reproduce the 'gendered' social structure to a different degree but may also differently condition the *effect* of this reproduction (Stryker, 1992; West & Zimmerman, 1987). In this way,

gender could be fragmented into multiple masculinities and femininities (Pyke, 1996).

Considering *between*-class variation, it is suggested that lower-class husbands compensate their subordinated status in relation to higher-class men, by exerting power in the private sphere (Pyke, 1996; Rubin, 1976). Therefore, relying on stereotypical gender arrangements enables lower-class husbands to (re)produce their masculinity (Huston & Geis, 1993; Komarowsky, 1964; Mirowsky & Ross, 1987; Rubin, 1976). Women in these families are supposed to deal with the expressive side whereas men are expected to take responsibility for the instrumental side and to devalue emotional sensitivity (Weber, 1998). In contrast, higher-class spouses are less likely to be tied to traditional prescribed traits of men and women (Huston & Geis, 1993). Because of their higher material or educational capital, they are less hampered in the endorsement of nontraditional options (Laermans, 1993). According to Pyke (1996), however, the observed differences between higher and lower social strata mainly refer to a discourse and not to a daily routine. It may be even true that in practice lower-class husbands act more egalitarian than middle and upper-class men. The latter are often released from feminine tasks because of the importance, or even hegemony, of the male career. Despite much effort devoted to examining the influence of instrumentality and expressiveness on marital quality, previous studies paid no systematic attention to their specific effects in higher and lower social strata.

In this study, we distinguish between higher and lower social strata in terms of the family income and both partners' educational level. Doing so, a distinction is made between the cultural and the material aspects of social class. According to the reasons outlined above, it is hypothesized that lower income couples and lower educated spouses will be more satisfied with their marriage when husbands adhere to stereotypical instrumental qualities and women to expressive qualities.

Fourth, we do not only pay attention to spouses' social position in terms of income and education, but also more specifically to women's position in terms of their participation at the labor market. Since expressiveness and instrumentality are both qualities that are strongly associated with stereotypical male and female roles, they might produce different marital outcomes in case wives are employed or not. Essentially, employed

women enter a male sphere in which they may also need to adopt male qualities. According to McDowell (2001), women's attachment to the labor market has never been as significant for their personal identities as in the current decades. Therefore, it is reasonable to assume that the importance of instrumental and expressive qualities for spouses' marital experiences might depend on whether women are employed or not. On the one hand, it can be hypothesized that employed wives are supposed to ascribe to the required instrumental qualities. Consequently, marital partners might experience women's instrumentality as less negatively in case of labor market participation (Vannoy-Hiller & Philliber, 1989). On the other hand, however, it can be expected that precisely because of the accomplishment of non-stereotypical roles, women need to be reaffirmed in their femininity by strongly adhering to traditional gender expectations. Hochschild and Machung (1989) describe a similar phenomenon known as *balancing*. Women working outside the home and earning more than their partner, curiously enough, do more at home than other women, and more than their husband. A comparable conclusion was reached by Tichenor (1999) demonstrating that wives occupying a higher status than their husbands, bear the large burden of domestic labor. It is speculated that those wives develop a new – socially induced – sense of guilt for which they try to compensate through overemphasizing their femininity (Hochschild & Machung, 1989; Matthijs & Van den Troost, 1998). Thus, the effect of instrumental and expressive qualities does not seem to depend only on women's employment but also on the social position of their husbands. In one respect, it might be therefore hypothesized that in higher social strata it is more likely that spouses share the expectation that women seek personal fulfillment through performing public roles and adopt qualities required for this performance. In another respect, there are reasons to believe that precisely in higher social strata some wives consider the blurring of roles as a threat for their femininity and therefore overemphasize their feminine identity or their husbands' masculine identity. Hence, it remains contentiously whether women benefit more from expressive or from instrumental qualities when they are (un)employed.

It should be stressed, however, that the positive effect of husbands' expressiveness on spousal satisfaction might not depend on women's employment (Vannoy & Philliber, 1992). The ability of men to take on a

supportive role is beneficial in both traditional and nontraditional situations.

7.3. PRESENT STUDY AND HYPOTHESES

The main goal of this study is to provide insight into the conditionality of the association between marital satisfaction, instrumentality and expressiveness in a sample of married couples with children. Our purpose can be divided into four research aims. First, we examine to what degree the inclusion of instrumental and expressive traits into one's self concept is associated with one's own and one's partner marital satisfaction. We expect that husbands and wives are more satisfied when their partners are more expressive (H1). Moreover, it can be anticipated that husbands' expressiveness is more closely tied up to women's than to men's marital satisfaction (H2).

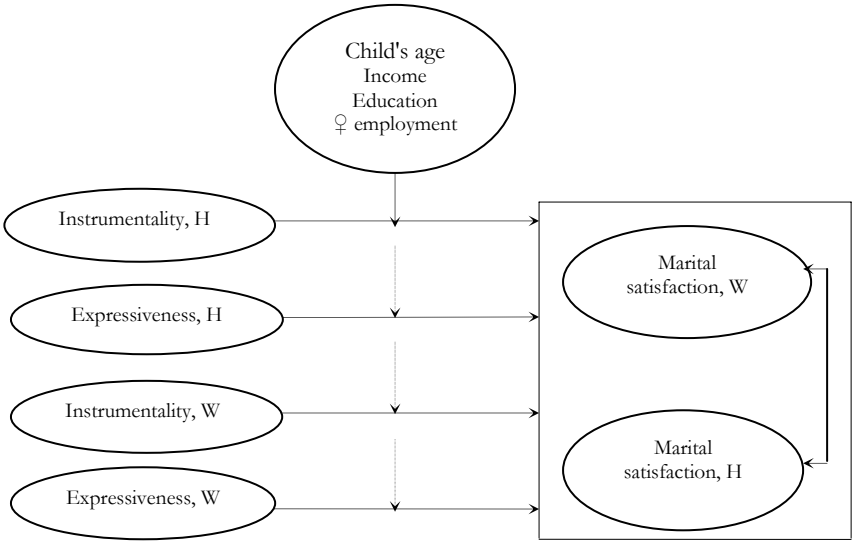
A second purpose is to study the relationship between instrumentality and expressiveness, and marital satisfaction in different relationship stages and more specifically according to the age of the children. Given the fact that the target child of the couples included in our study are adolescents aged between 14 and 21 years, we hypothesize that expressiveness is more important the younger the child is (H3). However, it can also be expected that instrumentality is more important the younger the child is (H4).

Third, we are interested in the influence of expressiveness and instrumentality on marital satisfaction across various socioeconomic circumstances. We distinguish different conditions by considering couple's income, spousal educational level and women's employment. It is expected that spouses from lower social classes are more satisfied to the extent that they are more characterized by stereotypical traits than are spouses from higher social classes (H5). The term social class will hereafter refer to both the income level of the household and the educational level of the spouses.

Fourth, with respect to the effect of stereotypical traits on spouses' marital satisfaction when wives are employed, no conclusive findings are at our disposal. Anticipation becomes even more difficult when dealing with Dutch couples. Yet, the Netherlands takes on a peculiar position regarding women's employment. In comparison to other Western countries, a high proportion of women working part-time characterizes Dutch women's

employment. For the objective of our study, two hypotheses seem to be plausible. For one, emphasizing stereotypical female traits will have more positive effects on spousal satisfaction in higher than in lower social classes when wives are employed (H6). By doing so, women accentuate their female identity. For another, however, it might be expected that lower class spouses, and men in particular, tend to stress the stereotypical male identity to keep in accordance with traditional sex segregated ideals, even when women are employed (H7). Figure 7.1 visualizes the general research model of this study. The four interaction terms included refer to the interaction between each spouse's gender role identity and social position.

Figure 7.1
Conceptual Model for Gender Role Identity and Marital Satisfaction



This study extends prior research on gender role identity and marital satisfaction in two important ways. First, gender differences are documented by analyzing husbands and wives belonging to the same couple instead of examining independent men and women. Second, analyses are conducted within distinct social contexts to determine if

different processes link gender role identity with spousal evaluation of marriage for different social groups.

7.4. METHOD

7.4.1. Procedure and sample

The research sample consists of married men and women participating in the longitudinal research project "Child-Rearing and Family in the Netherlands". Families were recruited using a multi-stage sampling method. In a first stage, a sample was taken of all Dutch municipalities distinguished by regional zone and degree of urbanization. In a second stage, a sample of children aged 9 to 16 years was taken in the selected municipalities. The children as well as their parents were included in the research group. Of the 788 families participating in 1990, 484 (61%) did participate in 1995. More technical details on the database can be found in Chapter 3 and in Gerris et al. (1992; 1993; 1998). The data were gathered by means of structured interviews and questionnaires. The first wave of the study was not included in our analysis as gender role identity variables were only measured in the second wave. Only first marriages in which both men and women have a Dutch nationality were selected. Of this group in the year 1995, 386 couples could be potentially taken into account for our analysis.

Couples had been married for about 22 years. Husbands were 47.5 years and wives were 45.0 years on average. Men reported higher levels of education than did women. One quarter of the male sample has a university degree, whereas for women this figure is approximately one out of eight. For husbands, 48% reported to have a middle low or low school degree whereas for women this is 61%. Sex differences also exist with regard to employment activities. Whereas only 2% of the men are homemakers or not involved in paid employment, more than one out of three women fall into these categories. Nine out of ten men are employed, but this holds only for six out of ten women (57%). In comparison to men, women are situated more in the "unskilled jobs" category (13% women versus 2% men) and less in the "higher professions" group (11% women versus 18% men).

To examine whether the couples, used in our study, are representative for the couples that participated in the first measurement wave, we conducted a logistic regression. The dependent variable is a dummy coded variable representing whether the couple participated only once or both times. The independent variables included are all the variables of interest for this study, except from spousal gender role identity, which was only measured at the second wave. The χ^2 test for the total model was not significant indicating that the included variables do not account for significant differences. Therefore, we assume that the research sample reflects the initial group with respect to age of the spouses, educational and income level of the family, women's employment and spousal satisfaction.

7.4.2. Measures

Education was measured in response to the question "What is your highest educational level?" Nine levels were considered ranging from 1 = "elementary school" to 9 = "university education".

Family income was measured in response to the question "What is the monthly net family income (in guilders)?" Seven income groups were distinguished: 1 = "1100-1600", 2 = "1600-1800", 3 = "1800-2100", 4 = "2100-2500", 5 = "2500-3250", 6 = "3250-4500" and 7 = "more than 4500". One guilder is approximately 0.45 Euro.

Instrumental and expressive traits were measured by two scales derived from the Personal Attributes Questionnaire of Spence & Helmreich (1978). The scale of instrumentality contains items about instrumental and independent characteristics, which are more likely to be endorsed by males than females. The expressiveness scale consists of seven items about expressive, communal characteristics of which it is believed that women possess them in greater abundance than males. The questionnaire consists of bipolar items with 5 boxes between the two poles. The respondents have to indicate which characteristic is more applicable to them by putting their mark near the pole representing the characteristic. If they think that both characteristics are somewhat applicable to them, they put their mark in the box in the middle. The validity of both scales is described in Gerris et al. (1998). Because some items did not significantly load on one but two dimensions, they were removed from the scale. Hence, the retaining scale

items represent a limited indication of the initial 'expressiveness' and 'instrumentality' items. The instrumentality scale in particular covers items rather indicating emotional stability or imperturbability. In accordance with Garrido and Acitelli (1991), the scales could also represent interdependency versus independency. However, to preserve the link with the literature on expressiveness and instrumentality and to situate our study in this tradition, we will hereafter use the original labels while keeping the just mentioned qualification in mind. Cronbach's alpha coefficient for the instrumentality scale is .75 for men and .76 for women. For the expressiveness scale these figures are .71 and .70 respectively.

Marital satisfaction refers to the satisfaction with the partner and the relationship in general. This measure is based on the marital satisfaction scale developed by Kerkstra (1985). Only the items measuring general marital satisfaction were included. Using factor analysis a scale of 7 items was retained. The same factor solution was obtained for men and women and was exactly replicated with the data of the second wave. The validation analysis is elaborated in Chapter 4. For formulating the items of this scale, satisfaction with the relationship and/or the partner was used as the guiding principle (e.g., "Generally, I'm dissatisfied with the relationship with my partner" or "If I could choose again, I would choose the same partner"). The scale consists of seven 7-point Likert items, ranging from 1 = "not at all applicable" to 7 = "very applicable". The replies were added together so that a higher score indicates a more satisfied relationship. In 1995, alpha coefficient was .87 for women and .85 for men. I.

Control variables: Authors have been shown that individuals modify their identities and self-perceptions as a function of their life situation and stage of family life (Feldman, Biringen & Nash, 1981; Tamir & Antonucci, 1981). Therefore, marital duration was controlled for in all our analyses. Moreover, individuals' age and their educational level, the family's net income level as well as whether women are employed or not, were included in all models.

7.5. RESULTS

Descriptive analysis and correlations among measures

Means and standard deviations as well as correlations are shown in Table 7.1. The results show moderate but positive correlations between individuals' scores on instrumentality and expressiveness. Spouses who define themselves in terms of stereotypical qualities are more likely to also ascribe qualities of the opposite sex to themselves.

In contrast, social conditions such as the family income or one's educational level are not related to spouses' adoption of expressive or instrumental traits.

Considering husbands and wives' marital satisfaction, the correlational analysis demonstrates that husbands' expressiveness is positively correlated with both spouses' marital satisfaction. Neither husbands' instrumentality, nor wives' instrumentality and expressive traits are associated with spousal marital satisfaction.

Sex differences on the gender role identity variables were examined with paired t-tests. Results of the between-spouse correlations indicate that in comparison with one's spouse, wives score significantly higher on expressiveness (t = -8.12, p < .0001) whereas husbands score higher on instrumentality (t = 10.27, p < .0001).

Mean scores on the marital satisfaction scale were 6.0 for husbands and 5.9 for wives. A paired t-test indicate that this difference is not significant (t = 1.51, p = 0.14). Thus, wives and husbands are equally satisfied with their marital relationship.

Table 7.1
Correlation Matrix of Gender Variables, Women's Employment, Household Income, Educational Level and Marital Satisfaction [Husbands Below Diagonal, Wives Above Diagonal]

		1	2	3	4	5	6	7	8	M	SD
1	Income	/	.37 ***	.15 **	.09	.02	.09	-.05	.07	6.70	1.28
2	Education	.46 ***	/	.11 *	-.01	.06	.01	-.07	.00	3.24	1.65
3	Employ, W	.15 **	.00	/	-.01	.03	.02	.01	.03	0.57	0.50
4	Inst, H	.09	-.01	-.01	/	.18 ***	.03	.04	-.03	3.68	0.58
5	Expr, H	.02	.04	.03	.18 ***	/	.02	.09	.20 ***	3.44	0.56
6	Inst, W	.09	-.00	.02	.03	.02	/	.14 *	.06	3.23	0.63
7	Expr, W	-.05	-.05	.01	.04	.09	.14 **	/	.06	3.77	0.53
8	Marital sat.	-.08	-.08	.08	.02	.13 *	-.06	.07	/	5.92	1.10
M		6.70	3.89	0.57	3.68	3.44	3.23	3.77	6.02		
SD		1.28	2.02	0.50	0.58	0.56	0.63	0.53	0.99		

* p < .05 ** p < .01 *** p < .001

Note: Income = net family income; Employ, W = employment, wife (1 = yes, 0 = no); Inst, H = instrumentality, husband; Inst, W = instrumentality, wife; Expr, H = expressiveness, husband; Expr, W = expressiveness, wife; Marital sat. = marital satisfaction

Multiple regression analyses

Our research questions were addressed using regression and multi-group analysis in LISREL 8.5 (Jöreskog & Sorböm, 1996). LISREL is used to exploit the important feature of dealing with dyadic data rather than because of its progressiveness in addressing measurement reliability and validity (Kenny & Cook, 1999). The possibility to equal husbands' and wives' coefficients and to subsequently test whether this equality constraint is acceptable or not, is a major advantage of using LISREL for dependent data.

Despite the fact that most variables in our analysis are latent variables measured by manifest scale items, we used the summated scale scores as manifest indicators. Using the individual items as indicators for each of the latent variables the number of parameters to be estimated is too large with respect to the sample size (N = 386), casting doubt on the stability of the results (Mueller, 1996). Therefore, we defined all variables of interest as observed variables in LISREL, strongly reducing the numbers of parameters to be estimated.

Before testing our models, we created two-way interaction terms in SAS by computing the product between gender role identity and indicators of socioeconomic position or family life stage. Note that we mean-centered our variables of interest to minimize multicollinearity problems. It is acknowledged that considerable estimation problems can arise when multicollinearity is introduced into a regression equation with interaction effects (Aiken & West, 1991; Jaccard, Turussi, & Wan, 1990). Because multicollinearity in regression analysis with higher order terms is primarily due to scaling, centering variables can strongly lessen this problem.

All formulated hypotheses that concern three-way interaction terms were tested using multi-group analysis. It concerns the hypotheses referring to both spouses' educational levels as well as the hypotheses relating women's employment to spousal socioeconomic position. Therefore, we applied a median split approach to divide the third variable of the interaction term in two categories. Within each of those categories, we conducted regression analyses with two-way interaction terms, which were created in SAS as indicated above. For the hypotheses implying two-way interaction terms, we preferred the use of this two-way product term above a multi-group approach because of the loss of information when splitting up metric variables in groups.

Table 7.2
The Effect of Gender Role Identity on Marital Satisfaction Without and With the Inclusion of Two-Way Interactions with Age of the Child and Household Income (Unstandardized Effects and Associated T-Values, for Men and Women)

Model without interaction effects

Women's satisfaction	b	t[(a)]	**Men's satisfaction**	b	t
Inst, H	-.13	-1.13	Inst, H	.10	0.98
Inst, W	.14	1.51	Inst, W	-.07	-0.77
Expr, H	.40	3.69	Expr, H	.21	2.20
Expr, W	.14	1.52	Expr, W	.14	1.52
R^2 = .07			R^2 = .05		
Correlation (Eta1, Eta2) = .44 (b)	$\chi^2(27)$ = 17.27		p = 0.92	RMSEA = .00	CFI = 1.00

Interaction effects with age of the child

Women's satisfaction	b	t	**Men's satisfaction**	b	t
Inst, H	-.13	-1.18	Inst, H	.09	0.93
Inst, W	.13	1.37	Inst, W	-.08	-0.96
Expr, H	.39	3.68	Expr, H	.20	2.16
Expr, W	.16	1.72	Expr, W	.16	1.72
Year birth, C	.00	-0.04	Year birth, C	-.02	-0.85
Year birth, C * Inst, H	.09	2.22	Year birth, C * Inst, H	.09	2.22
Year birth, C * Expr, H	-.06	-1.68	Year birth, C * Expr, H	-.06	-1.68
Year birth, C * Inst, W	.02	0.60	Year birth, C * Inst, W	.02	0.60
Year birth, C * Expr, W	.07	1.59	Year birth, C * Expr, W	.07	1.59
R^2 = .09			R^2 = .08		
Correlation (Eta1, Eta2) = .42	$\chi^2(83)$ = 56.27		p = 0.99	RMSEA = .00	CFI = 1.00

Interaction effects with income

Women's satisfaction	b	t	**Men's satisfaction**	b	t
Inst, H	-.13	-1.19	Inst, H	.11	1.08
Inst, W	.17	1.79	Inst, W	-.06	-0.71
Expr, H	.39	3.64	Expr, H	.18	1.90
Expr, W	.15	1.60	Expr, W	.15	1.60
Income	.08	1.40	Income	-.07	-1.41
Income * Inst, H	.01	0.18	Income * Inst, H	.01	0.18
Income * Expr, H	.02	0.29	Income * Expr, H	.02	0.29
Income * Inst, W	.11	1.96	Income * Inst, W	.11	1.96
Income * Expr, W	.10	1.17	Income * Expr, W	-.17	-2.24
R^2 = .08			R^2 = .07		
Correlation (Eta1, Eta2) = .42	$\chi^2(63)$ = 41.87		p = 0.98	RMSEA = .00	CFI = 1.00

Note: Inst, H = instrumentality, husband; Inst, W = instrumentality, wife; Expr, H = expressiveness, husband; Expr, W = expressiveness, wife; Year birth, c = year of birth, child

(a) t = 2.58 (p < .01); t = 1.96 (p < .05); t = 1.64 (p < .10)

(b) Correlation (Eta1, Eta2) = Correlation between husbands and wives' marital satisfaction

The process of testing our models in LISREL involves several steps. In a first step, a baseline model without equality constraints was tested. This model included the variables of interest and the control variables. The set of exogenous variables as well as the set of endogenous variables are allowed to correlate. In a second step, non-significant correlations between exogenous variables were fixed to zero. In subsequent steps, it is tested whether significant gamma path coefficients can be equated between husbands and wives or between the distinguished groups. Chi-square difference tests between constrained and non-constrained models indicate if the constraining of these paths result in a (non)significant increase of the chi-square. If imposing an equality constraint does not result in a significant increase of chi-square value, it can be concluded that the coefficients do not significantly differ from each other. For the sake of brevity, we only present the final models in the Tables. The results of the control variables are not included in the presentation.

Before testing the moderating nature of one's social position, the main effects of spousal instrumentality and expressiveness on their marital satisfaction was examined in a first model. As can be seen in Table 7.2, for husbands as well as wives it appears that male's expressiveness is positively associated with spousal marital satisfaction. This association, though, is stronger for women than for men, lending support to the second hypothesis. The effect of wives' expressiveness, however, was not found significant (t = 1.52, p > .10). Consequently, it can be concluded that the first hypothesis is supported for husbands' expressiveness but not for wives' expressiveness.

Regression model with interaction between gender role identity and age of the child

Our third hypothesis assumes that expressiveness may have a more positive effect on spousal marital satisfaction when children are in their early adolescence. The results are given in Table 7.2 and indicate that husbands' instrumental qualities such as being "self-confident" and "consciousness" have a more positive effect on both spouses' satisfaction the younger is the child. For every year that year of birth changes, the slope of marital satisfaction on husbands' instrumentality increases by 0.09 units. Because the age of the children included in our study (indicated by year of birth) ranges from 14 to 21 years, this result implies that husbands' instrumentality is

more beneficial for marriage when children are in their early adolescence phase and is less important when children become older, supporting the fourth hypothesis. At a lower significance level (t = -1.68, p < .10) it also becomes apparent that besides the positive main effect of husbands' expressiveness, the latter appears to be less positive for spousal satisfaction in the period of early adolescence. Our third hypothesis, stating that expressiveness may yield more positive effects when children are younger, cannot be supported.

Besides these interaction effects, the analysis shows that husbands' expressiveness and at a weaker significance level also wives' expressiveness (t = 1.72, p < .10) has a positive main effect on both spouses' satisfaction.

Regression model with interaction between gender role identity and spouses' income position

Testing the fifth hypothesis, we assume that spousal income position mitigates the effect of expressiveness and instrumentality on marital satisfaction. Therefore, a model with four two-way interactions was fitted (RMSEA = .00 and CFI=1.00). The results are given in Table 7.2. As in the previous models, husbands' expressiveness has a positive effect on both spouses' marital satisfaction and this association is stronger for wives than for husbands.

Furthermore, two interaction effects were significant. First, our results demonstrate that husbands report lower satisfaction to the extent that the family income is higher and wives define themselves in expressive qualities. Specifically, it appears that for every unit that income changes, the slope of husbands' marital satisfaction on wives' expressiveness decreases by 0.17 units. Second, both husbands and wives, are more satisfied to the degree the family income is higher and wives define themselves in instrumental qualities. These results lend support to Hypothesis 5, assuming that the effect of endorsing stereotypical qualities is more beneficial for lower class couples.

Table 7.3
The Effect of Gender Role Identity on Marital Satisfaction With Two-Way Interactions Between Wives' Educational Level and Gender Role Identity, Multi-Group Analysis Between Higher and Lower Educated Husbands (Unstandardized Effects and Associated T-Values, for Men and Women)

	Lower educated husbands				
Women's satisfaction	b	t [(a)]	**Men's satisfaction**	b	t
Inst, H	-.10	-0.96	Inst, H	.11	1.22
Inst, W	.28	2.42	Inst, W	-.06	-0.80
Expr, H	.26	3.35	Expr, H	.26	3.35
Expr, W	.21	2.57	Expr, W	.21	2.57
Educ, w	.12	1.82	Educ, w	.11	1.96
Educ, W * Inst, H	-.07	-1.51	Educ, W * Inst, H	-.07	-1.55
Educ, W * Expr, H	.03	0.51	Educ, W * Expr, H	.03	0.51
Educ, W * Inst, W	.07	1.75	Educ, W * Inst, W	.07	1.75
Educ, W * Expr, W	-.01	-0.19	Educ, W * Expr, W	-.01	-0.19
R^2 = .08			R^2 = .17		
Correlation (Eta1, Eta2) = .43 [(b)]					
	Higher educated husbands				
Women's satisfaction	b	t	**Men's satisfaction**	b	t
Inst, H	-.10	-0.96	Inst, H	.11	1.22
Inst, W	.00	-0.03	Inst, W	-.06	-0.80
Expr, H	.26	3.35	Expr, H	.26	3.35
Expr, W	.21	2.57	Expr, W	.21	2.57
Educ, w	-.10	-1.89	Educ, w	-.09	-2.02
Educ, W * Inst, H	-.07	-1.51	Educ, W * Inst, H	-.07	-1.51
Educ, W * Expr, H	.03	0.51	Educ, W * Expr, H	.03	0.51
Educ, W * Inst, W	.07	1.75	Educ, W * Inst, W	.07	1.75
Educ, W * Expr, W	-.01	-0.19	Educ, W * Expr, W	-.01	-0.19
R^2 = .10			R^2 = .08		
Correlation (Eta1, Eta2) = .38					
Model: $\chi^2(136)$ = 118.35	p = 0.86		RMSEA = .00		CFI = 1.00

Note: Inst, H=instrumentality, husband; Inst, W=instrumentality, wife; Expr, H = expressiveness, husband; Expr, W=expressiveness, wife; Educ, w=education, wife

[(a)] t = 2.58 (p < .01); t = 1.96 (p < .05); t = 1.64 (p < .10)

[(b)] Correlation (Eta1, Eta2) = Correlation between husbands and wives' marital satisfaction

Regression model with interaction between gender role identity and spouses' educational level

The fifth hypothesis is also tested using educational level as an indication of higher and lower social class. As indicated above, testing the moderating effect of spouses' educational level on the association between gender role identity and satisfaction requires a three-way interaction term. To capture this complex relationship, we gave preference to the use of a two-way interaction term within the categories of the third variable. Therefore, we split up our sample. The interaction between wives' educational level and spousal expressiveness and instrumentality is examined in a sub-sample of higher respectively lower educated men. The median split of educational level corresponds to husbands who enjoyed at least higher secondary education and those who finished lower secondary education or less.

Two main effects were found significant in the higher as well as the lower educated sub-sample and for both husbands and wives. It was demonstrated once more that husbands' expressiveness and also wives' expressiveness are positively associated with marital satisfaction. This effect appeared to be just as strong in the higher as in the lower educated group of husbands. Besides, in the latter subgroup, wives' instrumentality also appeared to have a positive effect on women's satisfaction. The more women are "self-confident" and "not excitable in crises" the higher their reported satisfaction.

None of the interactions are meaningful related to spousal marital satisfaction, except for one interaction effect that was found significant at the .10 level (t = 1.75). For both husbands and wives in the lower and the higher educated sub-sample it appears that wives' instrumentality has a more positive effect on spousal satisfaction the higher women are educated.

Table 7.4
The Effect of Gender Role Identity on Marital Satisfaction With Two-Way Interactions Between Wives' Employment and Gender Role Identity, Multi-Group Analysis Between Higher and Lower Income Couples (Unstandardized Effects and Associated T-Values, for Men and Women)

Lower income couples					
Women's satisfaction	b	t [(a)]	**Men's satisfaction**	b	t
Inst, H	.04	0.45	Inst, H	.04	0.45
Inst, W	.00	0.03	Inst, W	.00	0.03
Expr, H	.29	3.58	Expr, H	.29	3.58
Expr, W	.06	0.68	Expr, W	.33	2.64
Employ, w	-.04	-0.22	Employ, w	.11	0.74
Employ, w * Inst, H	.44	1.82	Employ, w * Inst, H	.44	1.82
Employ, w * Expr, H	-.11	-0.66	Employ, w * Expr, H	-.11	-0.66
Employ, w * Inst, W	-.05	-0.39	Employ, w * Inst, W	-.05	-0.39
Employ, w * Expr, W	-.32	-1.29	Employ, w * Expr, W	-.32	-1.29
R^2 = .06			R^2 = .15		
Correlation (Eta1, Eta2) = .42 [(b)]					
Higher income couples					
Women's satisfaction	b	t	**Men's satisfaction**	b	t
Inst, H	.04	0.45	Inst, H	.04	0.45
Inst, W	.00	0.03	Inst, W	.00	0.03
Expr, H	.29	3.58	Expr, H	.29	3.58
Expr, W	.06	0.68	Expr, W	.06	0.68
Employ, w	.15	0.98	Employ, w	.12	0.84
Employ, w * Inst, H	-.37	-1.73	Employ, w * Inst, H	-.37	-1.73
Employ, w * Expr, H	-.11	-0.66	Employ, w * Expr, H	-.11	-0.66
Employ, w * Inst, W	-.05	-0.39	Employ, w * Inst, W	-.05	-0.39
Employ, w * Expr, W	.11	0.48	Employ, w * Expr, W	.11	0.48
R^2 = .06			R^2 = .07		
Correlation (Eta1, Eta2) = .41					
Model: $\chi^2(123)=107.55$		p = 0.84	RMSEA = .00		CFI = 1.00

Note: Inst, H = instrumentality, husband; Inst, W = instrumentality, wife; Expr, H = expressiveness, husband; Expr, W = expressiveness, wife; Employ, w = employment, wife

[(a)] t = 2.58 (p < .01); t = 1.96 (p < .05); t = 1.64 (p < .10)

[(b)] Correlation (Eta1, Eta2) = Correlation between husbands' and wives' marital satisfaction

Regression model with interaction between gender role identity and female employment according to spouses' socioeconomic position

To test the sixth and seventh hypothesis stating that the effect of spousal gender role identity on marital satisfaction depends on women's employment in higher and lower social strata, we performed two multi-group analyses. In a first model we examined the interaction between gender role identity and female employment (1 = yes, 0 = no) on husbands' and wives marital satisfaction in a sample of lower respectively higher income couples. A similar multi-group analysis was conducted in a sample of lower and higher educated husbands. Both multi-group models showed an excellent fit with RMSEA values of .00 and CFI values of 1.00.

Considering the multi-group analysis in higher and lower income couples our results show that in the latter, husbands' endorsement of instrumental qualities has a stronger positive effect on both spouses' marital satisfaction when the wife is employed (t = 1.82). The reverse, however, holds for higher income couples. In these couples, husbands' endorsement of instrumental qualities has a more negative effect on both spouses' marital satisfaction when the wife is employed (t = -1.73).

Table 7.5
The Effect of Gender Role Identity on Marital Satisfaction With Two-Way Interactions Between Wives' Employment and Gender Role Identity, Multi-Group Analysis Between Higher and Lower Educated Husbands (Unstandardized Effects and Associated T-Values, for Men and Women)

	Lower educated husbands				
Women's satisfaction	b	t [a]	**Men's satisfaction**	b	t
Inst, H	-.07	-0.70	Inst, H	.13	1.51
Inst, W	.03	0.48	Inst, W	.03	0.48
Expr, H	.30	3.84	Expr, H	.30	3.84
Expr, W	.18	2.28	Expr, W	.18	2.28
Employ, w	-.10	-0.59	Employ, w	.21	1.54
Employ, w * Inst, H	.42	1.92	Employ, w * Inst, H	.42	1.92
Employ, w * Expr, H	-.13	-0.84	Employ, w * Expr, H	-.13	-0.84
Employ, w * Inst, W	-.07	-0.50	Employ, w * Inst, W	-.07	-0.50
Employ, w * Expr, W	-.15	-0.94	Employ, w * Expr, W	-.15	-0.94
R^2 = .07			R^2 = .17		
Correlation (Eta1, Eta2) = .40 [b]					
	Higher educated husbands				
Women's satisfaction	b	t	**Men's satisfaction**	b	t
Inst, H	-.07	-0.70	Inst, H	.13	1.51
Inst, W	.03	0.48	Inst, W	.03	0.48
Expr, H	.30	3.84	Expr, H	.30	3.84
Expr, W	.18	2.28	Expr, W	.18	2.28
Employ, w	.18	1.10	Employ, w	.05	0.32
Employ, w * Inst, H	-.48	-2.13	Employ, w * Inst, H	-.48	-2.13
Employ, w * Expr, H	-.13	-0.84	Employ, w * Expr, H	-.13	-0.84
Employ, w * Inst, W	-.07	-0.50	Employ, w * Inst, W	-.07	-0.50
Employ, w * Expr, W	-.15	-0.94	Employ, w * Expr, W	-.15	-0.94
R^2 = .11			R^2 = .09		
Correlation (Eta1, Eta2) = .38					
Model: $\chi^2(154)$ = 142.56	p = 0.74		RMSEA = .00	CFI = 1.00	

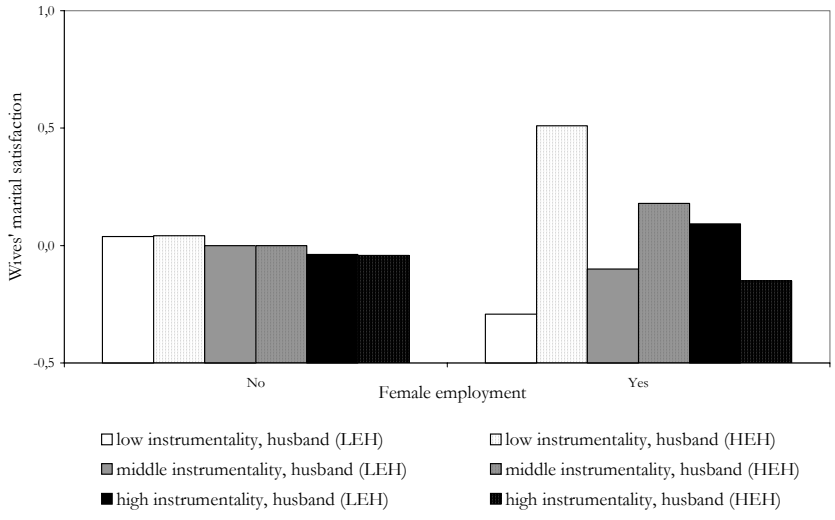
Note: Inst, H = instrumentality, husband; Inst, W = instrumentality, wife; Expr, H = expressiveness, husband; Expr, W = expressiveness, wife; Employ, w = employment, wife
[a] t = 2.58 ($p < .01$); t = 1.96 ($p < .05$); t = 1.64 ($p < .10$)
[b] Correlation (Eta1, Eta2) = Correlation between husbands and wives' marital satisfaction

Considering the same analysis in a sample of lower and higher educated husbands, quite similar findings were obtained. Spouses in the higher educated sample appear to be less satisfied when wives are employed and husbands endorse instrumental qualities (t = -2.13) whereas the reverse conclusion can be drawn for the lower educated sample (t = 1.92). Hence, our findings lend support to Hypothesis 7, stating that emphasizing husbands' instrumentality in lower social classes where wives are employed, contributes to spousal marital satisfaction.

Besides the just described interaction effects, the positive main effect of husbands' expressiveness as well as wives' expressiveness on spousal satisfaction was demonstrated once again.

The interaction effects between women's employment and husbands' instrumentality within higher and lower educated groups of husbands are visualized for women's marital satisfaction in Figure 7.2. All interaction effects described above are summarized in Table 7.6.

Figure 7.2
Visual Presentation of the Interaction Effect Between Female Employment and Husbands' Instrumentality on Wives' Marital Satisfaction in Lower and Higher Educated Groups of Husbands



Note: LEH = low educated husbands, HEH = high educated husbands

7.6. DISCUSSION

The aim of this study was twofold. Using couple data, it was firstly examined how expressiveness and instrumentality is associated with spousal marital satisfaction. Second, we studied whether and how this association is moderated by couple's marital stage, family income, spousal educational level and women's employment. This question was addressed in a Dutch sample of established couples with children.

Table 7.6
Summary of the Significant Interaction Effects Between Gender Role Identity and Wives' Employment, Couple's Income and Spousal Educational Level on Marital Satisfaction

	Children younger (min. 14 years)	Higher income levels	High educational level of the couple
Wives' satisfaction	Husbands' instrumentality (+) Husbands' expressiveness (-)[a]	Wives' instrumentality (+)	Wives' instrumentality (+)[a]
Husbands' satisfaction	Husbands' instrumentality (+) Husbands' expressiveness (-)[a]	Wives' instrumentality (+) Wives' expressiveness (-)	Wives' instrumentality (+)[a]

	Wives' employment	
Wives' satisfaction	**Lower income level** Husbands' instrumentality (+)[a]	**Lower educational level, husband** Husbands' instrumentality (+)
	Higher income level Husbands' instrumentality (-)[a]	**Higher educational level, husband** Husbands' instrumentality (-)
Husbands' satisfaction	**Lower income level** Husbands' instrumentality (+)[a]	**Lower educational level, husband** Husbands' instrumentality (+)
	Higher income level Husbands' instrumentality (-)[a]	**Higher educational level, husband** Husbands' instrumentality (-)

Note. The direction of the effect of expressiveness or instrumentality is noted between brackets.
[a] $p < .10$

Throughout all the analyses conducted within the realm of this study, evidence was obtained for a positive effect of husbands' expressiveness on both spouses' marital satisfaction. This finding is in line with the generally supported idea that femininity, and expressiveness in particular, is beneficial for one's partnership (Antill, 1983). However, by including husbands and wives from one dyad into the same analysis, we demonstrated that the positive association between husbands' expressiveness and marital satisfaction is stronger for women's marital evaluation than for men's.

Despite the unequivocal importance of husbands' expressiveness, our results also indicate that this quality might be less paramount in the stage when one's children are young adolescents (about 14 years old). In this specific marital phase, partnership seems to benefit from husbands being instrumental rather than from husbands being expressive. Although the effect of wives' expressiveness was not significant, one can observe a tendency for spouses to report higher satisfaction when wives are more interpersonal oriented (expressive) in this stage. As children become older, and thus less demand is placed on the couple, these associations and trends become less strong. Apparently, in the phase of early adolescence men and women are better off when adopting traditional prescribed qualities, the latter holding particularly for men. In a similar vein, previous research has been shown that couples easily slip back into traditional gender role behavior at the arrival of children (Burke & Cast, 1997). How can we explain our finding? Perhaps, the family climate is more cohesive and adaptable when fathers assert their influence by means of their controlling qualities. Olson et al. (1983) demonstrated that balanced levels of cohesion and adaptability are indispensable for coping with the demands and stresses of the adolescent stage. As Holmbeck, Paikoff, and Brooks-Gunn (1995) suggest, control and effective discipline are essential components in realizing this cohesion and adaptation. At the same time, mothers seem to be more important sources of support and more responsive for the desires for adolescents than are fathers (Vandemeulebroecke, et al., 2000), explaining the observed tendency that wives' expressiveness may become more important in this stage. These speculations, however, require further investigation.

Our analysis yielded an interesting pattern of findings regarding the sex-specificity as well as the context-specificity of one's gender role identity

on spousal marital satisfaction. We discern two groups of analyses: one that controls for women's employment and one that includes interactions between gender role identity and women's employment. Within each group, analyses are conducted using partners' educational level or family income as an indicator for social class.

When controlling for women's employment, it becomes clear that husbands as well as wives in lower income groups are less satisfied when women endorse non-stereotypical male qualities. This finding supports the idea that lower strata more strongly adhere to stereotypical sex qualities (Huston & Geis, 1993). In a sense, lower income husbands may affirm their status position in the private sphere by disfavoring *masculine-typed (instrumentality)* women and preferring women who are typified as stereotypically feminine. The latter becomes clear from the significant interaction effect between wives' expressiveness and income on husbands' satisfaction. However, it is not apparent whether lower class men selected their wives on these characteristics or whether these characteristics developed during marriage.

Considering cultural (education) instead of economic capital as an indicator of higher and lower social class, it is found once more that wives' instrumentality, be it at a .10 significance level, is a differentiating factor in spousal satisfaction when controlling for women's employment. Specifically, it is demonstrated that the effect of women endorsing instrumental qualities is more positive on women's satisfaction to the extent that they are higher educated. This association, however, was supported for couples in which husbands are higher as well as lower educated. In other words, to the extent that women gain more cultural capital, both marital partners seem to be more satisfied when wives adopt male stereotypical qualities. This result partially supports the idea that the effect of endorsing non-stereotypical qualities is more accepted within higher social strata. However, the question remains why lower educated husbands also report higher marital satisfaction when their higher educated wives adopt instrumental characteristics? Or, education has a broad emancipatory effect that clashes with male's instrumentality as role affirmative; or, lower educated husbands are not so much threatened by their wives' educational capital but rather by their economical capital.

The latter speculation emanates from two considerations. First, the Netherlands occupy a peculiar position with regard to women's employment (Niphuis-Nell & de Beer, 1997). In comparison to other Western countries, the Dutch labor market is characterized by a high rate of female part-time employment, accounting for the fact that Dutch men derive status from their position as main providers. It is important to note, however, that until the nineties the Netherlands lagged far behind the other Western countries with respect to female employment. As a result, Dutch men are only recently, and certainly at the time of our study, confronted with this new female status, which might come over as a threat or at least as a new situation to deal with. This situation has two opposite side-effects. For one, the traditional male status as (single) wage earner becomes now also a female 'status'; for another, new norms of material comfort and welfare increasingly require an additional income, particularly for lower classes. Moreover, being a single provider may put serious pressure on husbands (Oppenheimer, 1994; 1997). These mixed considerations might explain the positive trend of women's employment on husbands' marital satisfaction in lower classes and at the same time the accentuation of husbands' instrumental qualities under these circumstances.

A second thought accounting for the particular significance of women's employment in lower classes becomes clear in Table 7.3. This Table presents the model that controlled for women's employment, showing that for both higher and lower educated husbands, the interaction between women's education and husbands' instrumentality tends to be negative, be it not significant. This effect, though, reverses for the group of lower educated husbands when considering the interaction between women's employment and husbands' instrumentality, indicating that the distinct meaning of female educational and economical capital is vital in this group. In contrast, within the group of higher educated husbands, a negative effect between husbands' instrumentality and women's enhanced status remains whether or not one considers educational or economical capital. Similar evidence, yet at a lower significance level ($p < .10$), is obtained when considering interaction terms with women's employment in higher and lower income groups.

Hence, husbands' instrumentality and not wives' instrumentality or expressiveness seems to be essential in differentiating between more and

less satisfied spouses in marriages where wives are employed. In lower social layers, husbands' instrumentality is beneficial for spousal evaluation of marriage whereas in higher strata it has a negative effect on spousal marital satisfaction. These results may reflect the different nature and meaning attached to women's employment in distinct social layers. Probably, because women's employment in higher strata is more understood in terms of personal needs than as a financial necessity, stereotypically typed men are incompatible with the demands of 'non-stereotypical' women (Pyke, 1996). This line of reasoning is further supported by some post-hoc variance analyses we conducted. First, it appears that in higher social layers women are not only employed in higher occupations but they also work more hours than do women in lower social layers. Second, the former also report higher work-related stress. This may point to the greater salience of work for women in higher strata. Because of the importance of the work role, women devote more hours to this task but may also experience more stress because of their greater involvement. Hence, in higher social layers spouses might be better able to deal with women's employment when husbands do *not* endorse stereotypical male qualities, which are more orientated on independency and less on interdependency. These independency-oriented and stereotypical qualities of men do not seem to be congruent with the requirements associated with wives participating in the labor market. In lower strata, however, this status-enhancing act of women is managed, or perhaps even countered, by a stronger emphasis on husbands' stereotypical qualities. Notably, the lower economic status of employed women in these strata might not represent a serious challenge for touching upon male stereotypical qualities, but rather leads to an accentuation of it. Perhaps, the privileged status of lower strata men may be threatened or undermined by the consequences of women's employment for the internal functioning of the family. Indeed, the results from our post-hoc analyses demonstrate that within higher educated groups (but not in higher income groups), men spend significantly more time at childrearing tasks than in the lower educated groups. The reverse, though, holds for women. In higher educated layers, women take up less childrearing tasks than do their female counterparts from the lower educated groups. This might illustrate the different adaptations utilized by distinct educational groups to meet the demands of work and family life (Gottfried et al., 1995).

The reason why this distinctiveness was not found in higher and lower income groups might explain why the interaction between women's employment and husbands' instrumentality is more significant in the analysis using educational groups (Table 7.5) than in the one using income groups (Table 7.4). These interpretations, however, are tentative and unwarranted at this stage and therefore need further examination. In particular, attention should be paid to the interrelations between spousal gender role identities, women's income position and the way spouses evaluate the benefits and detriments resulting from wives' labor market participation.

Taken our findings together, though, our results show that in higher social class couples with women working outside the home, satisfied marriages become possible when husbands develop a less stereotypical male identity whereas in lower social layers they need to accentuate their traditional sex role qualities. In higher social layers, a strengthened economic position of women results in renouncing the 'traditional man' whereas in the lower layers it leads to an accentuation of it. Thus, in both social groups it appears that women's economic position is linked with men's stereotypical qualities and not with women's. This finding may point toward the idea, voiced by Amato & Booth (1995), and Vannoy and Phillibert (1992), stating that husbands may relieve the potential negative consequences associated with women's employment. Our analysis demonstrates that this phenomenon is typical, though, for higher social strata. In lower layers, both husbands and wives are better off when taking the 'traditional' lines. By emphasizing stereotypical aspects of masculinity, spouses in lower strata may confirm husbands' status position also in case when wives work outside. Note that social class instead of sex accounts for the variety in marital experiences as a result of spousal identities.

It becomes clear that, beyond the overall positive effect of husbands' expressiveness, spousal marital experiences in distinct social strata are not related to female qualities but rather result from the weighing up of stereotypical male qualities, either endorsed by men or by women. Considering the items of the instrumentality scale, one can notice that they primarily refer to feelings of independence or imperturbability. According to Marusic (1998) "stable" individuals are characterized by less vulnerability and more assertiveness. Orlofsky and Stake (1981) assert that these qualities

are a source of psychological strength, resulting in a healthy self-confidence in one's abilities. This study shows that the endorsement of these qualities, conditional upon social strata and women's employment, seems to make the difference between more and less satisfied spouses.

It is worth emphasizing that apart from the context-specific effects of instrumentality, husband's expressiveness is paramount in understanding husbands and wives' satisfaction. The more men endorse traits such as "being kind", "expressing tender feelings" and "not hiding emotions", the more satisfied are both marital partners. This holds for lower as well as higher social layers and for couples in which wives are employed or not. Connecting with others may be a new element in the old image of masculinity (Blazina, 2003). If these traits are characteristic of the so-called "new man", it can be asserted that not only wives but also husbands benefit from these qualities.

Some limitations of our study must put our results in the proper perspective. First, the scales of instrumentality and expressive traits are only a limited indication of one's masculinity or femininity. For example, we did not investigate gender behaviors or gender interests. Literature has shown that a different pattern of findings might appear when considering these different phenomena (Aubé & Koestner, 1992). Therefore, a more differentiated measurement of gender identity may be a fruitful way to gain a deeper understanding of the interplay of gender and social class for marital experiences. Second, instrumentality and expressiveness are measured as self-concepts. Data collected from one's partner or from the social network of the couple may yield a different pattern of results. Third, in two models the interaction effects just failed to reach a significance level of .05 (husbands' educational level * wives' educational level * instrumentality, wife and women's employment * income * husbands' instrumentality). However, because both effects point into the same direction as the results of the competing models, we tentatively interpreted these effects. It is recommended to further examine the significance of these associations in larger samples. Fourth, we deal with couples averagely married for 22 years with at least one child between 14 and 21 years old. Thus, our findings regarding the marital stage are limited to the period under study. Examining the subject in a sample of couples married for shorter as well as longer periods will broaden our insight in the phenomenon. Fifth, as we did not

use a longitudinal design, it remains possible that the direction of causality among our variables may turn out to be the opposite of what is hypothesized with marital satisfaction leading spouses to adopt a specific gender role identity. Satisfied partners might infer their degree of 'interdependency' from their satisfied feelings. Panel studies are needed to more fully explore this relationship over the marital life course as well as along different social strata. Sixth, except for husbands' satisfaction in lower social layers, the variance explained in our models is relatively limited, indicating that gender role identity is not a major determinant of spousal marital satisfaction. It is likely, however, that expressiveness and instrumentality become more important when considering them in relation to marital satisfaction through means of spousal interaction. Seventh, husbands and wives' occupation was not included in this study. Besides education and income, consideration of spousal occupations in general, and job dimensions such as autonomy and control in specific, may further deepen our insight in the processes suggested in this research (Perry-Jenkins & Folk, 1994).

Nevertheless, our study documents that social conditions are important when dealing with instrumentality and expressiveness. It is demonstrated that instrumentality and expressiveness are elements of one's personality or identity structure with a distinct relevance in different marital stages and social classes. As a consequence, husband's expressiveness is not the only constructive ingredient for marital satisfaction. Stereotypical male qualities are also a point of particular interest. Hence, marital reality is more complex than Antill's (1983) "femininity model" may suggest. Thus far our knowledge of this issue along different social levels and throughout the marital life course remains limited and in need of further exploration.