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Premarital Cohabitation and Housework: Couples in Cross-National Perspective

The authors examine the effect of premarital cohabitation on the division of household labor in 22 countries. First, women do more routine housework than men in all countries. Second, married couples that cohabited before marriage have a more equal division of housework. Third, national cohabitation rates have equalizing effects on couples regardless of their own cohabitation experience. However, the influence of cohabitation rates is only observed in countries with higher levels of overall gender equality. The authors conclude that the trend toward increasing cohabitation may be part of a broader social trend toward a more egalitarian division of housework.

Since the beginning of the 1970s, social changes have led to a remarkable diversity of living arrangements emerging in different countries at various speeds and intensities. The increase in cohabitation was one of them, promoting sociological and demographic research devoted to explaining the meaning, patterns, and implications of cohabitation for gender equality and for family and kinship systems in general (Blumstein & Schwartz, 1983; Bumpass

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& Lu, 1999; Gupta, 1999; Prinz, 1995; Seltzer, 2000; Smock, 2000; Wiersma, 1983).

Whether cohabitation is an alternative to marriage, a trial period for marriage, a dating type of relationship, or an alternative to being single is a matter of academic and often political contention (Casper & Sayer, 2000). According to Cherlin (1991, p. 14) there is no need to be concerned: For a majority of young Americans, cohabitation is not a lifelong alternative to a marital union ''but rather a stage of intimacy that precedes (or sometimes follows) marriage.'' For other researchers, the proliferation of cohabitation, like increased women's labor force participation, presents a serious challenge to the marriage institution and the well-being of children (Popenoe, 1993; Waite & Gallagher, 2000). Lesthaeghe and Surkyn (1988) find that cohabitation may be an attractive option for those who share liberal gender attitudes. In fact, several studies find that those who choose to cohabit are on average more liberal, less religious, and more supportive of egalitarian gender relations and nontraditional family roles (Clarkberg, Stolzenberg, & Waite, 1995; Lye & Waldron, 1997; Thornton, Axinn, & Hill, 1992).

We focus on the implication of cohabitation for gender equality in married couples. In particular, we examine the effect of premarital cohabitation on the division of housework labor in married couples. Changing patterns of the household division of labor have been linked to changing attitudes and roles of women and men in the workplace, family and society (Bianchi, Milkie, Sayer,

& Robinson, 2000). Brines and Joyner (1999) and Blumstein and Schwartz (1983) maintain that, unlike marital unions that are bound by joint utility maximization, cohabiting unions bond on egalitarian individualism. Cohabitors are less likely than married people to adhere to traditional gender ideology (Lesthaeghe & Surkyn, 1988) and tend to value more individual freedom within marriage (Thomson & Colella, 1992). We thus may expect that living in a premarital union increases the likelihood of adopting a more egalitarian division of labor after cohabitors marry.

Despite the considerable attention paid to housework in cohabiting and married couples, however, there has been little research comparing married couples that did and did not cohabit before marriage (Gupta, 1999). Comparing cohabiting couples with married couples (e.g., South & Spitze, 1994) may not reveal the effect of the cohabitation experience on subsequent marriages. Therefore, our first goal is to explore the premarital cohabiting experience in relation to the gender equality of task sharing in married couples.

In addition, the relationship between housework and cohabitation across countries is relatively unexplored. Gender inequality is manifested at both micro and macro levels, and "the processes at both levels underlie the reproduction of gender stratification" (Baxter, 1997, p. 221). Changing patterns in the division of labor among married couples are influenced not only by couple's own resources and attitudes, but also by changes in the social context. A cross-national comparison may shed light on the range of possible relationships between housework and cohabitation. Thus, our second goal is to examine the impact of national context on married couples' division of labor. For example, if the trend toward cohabitation reflects the broader development of gender equality, then we may expect that married couples living in countries with higher levels of cohabitation will have a more egalitarian division of labor even if they never cohabited themselves.

On the other hand, increases in cohabitation may not be coupled with a more general trend toward egalitarian gender attitudes and practices in all contexts, resulting instead from a shortage of marriageable men, for example (Raley, 1996). In this respect, cross-national comparisons may be especially useful. Several former socialist countries—including the Czech Republic, Russia, and Bulgaria—have relatively high cohabitation rates in the absence of other indicators of gender equality (see discussion further on).

In the Russian case, increased cohabitation rates since the 1980s may have to do with a growing antimarriage sentiment (Shlapentokh, 1984) and greater inclination of young people to be more open and sexually active in the context of relaxed social and familial control over sexual behavior (Maddock & Kon, 1994). The context for cohabitation in the former socialist countries is distinguished from the Western countries by an extreme shortage of housing that leads to multigenerational families sharing the same living quarters (Clapham, 1995; Lobodzinska, 1995). Maddock and Kon (p. 113) note, "Sexual activities with future spouses, or even with casual dates, must often take place within the family household," and for many couples, the housing situation does not change after marriage. Therefore, development of more egalitarian gender attitudes and behaviors may be inhibited by coresidence with a more conservative older generation.

Given these considerations, a broader measure of gender inequality at the national level—in addition to cohabitation rates—may help explain variation in the household division of labor. Using the data with a large number of respondents for 22 countries, we hope to help gain a better understanding of the differences in housework participation among married couples at both micro and macro levels.

RESEARCH ON COHABITATION

The growth of premarital cohabitation has been documented by many sociologists and demographers who foresee a continuation of the upward trend (Smock, 2000). Many Northern and Western European countries seem to be following the remarkable Swedish and Danish patterns of rising cohabitation (Prinz, 1995). In the United States, for example, the proportion of all first unions that started as cohabitation rose from 46% for unions formed between 1980 and 1984 to almost 60% for those formed between 1990 and 1994 (Bumpass & Lu, 1999). The number of cohabiting almost tripled between 1977 and 1994 (Casper & Cohen, 2000). Approval of cohabitation in the U.S. is also likely to increase in the future, as younger cohorts who are more supportive of cohabitation experience replace the older ones; studies of British respondents suggest a similar tendency (cited in Seltzer, 2000).

The meaning of cohabitation depends on expectations and experiences of individuals who form the union, as well as on the social context

in which it occurs. Although cross-national data on cohabitation indicate a rising propensity to cohabit in almost all Western countries, some are more open and supportive of cohabitation than others. For example, whereas in Sweden nonmarital cohabitation is commonplace, gaining legal and social support similar to the marriage institution (Hoem, 1995), in the United States the legal system is more reluctant to give cohabitors rights enjoyed by married couples (Seltzer, 2000).

There have been several explanations for an increase in cohabitation in the U.S. and other industrialized countries. Some authors explain cohabitation in the context of rising individual freedom, self-expression, and growing antimarriage sentiment (Lesthaeghe, 1983; Shlapentokh, 1984; Wiersma, 1983). Others stress economic considerations such as economic uncertainty and hardship, which increase the propensity to cohabit. The fact that cohabitation is a living arrangement for people with both low and high levels of education could reflect a way to cut costs for the former and a way to assess a partner's potential to be a good economic match or egalitarian partner for the latter (Cherlin, 2000; Oppenheimer, 1988). Still other researchers explain cohabitation as a result of the sexual revolution and availability of birth control, which relaxed controls over living arrangements and increased the independence of women (Prinz, 1995).

STUDIES OF THE HOUSEHOLD DIVISION OF LABOR

The great attention to the division of household work in recent years is a response to several trends in the U.S. (Blair & Lichter, 1991; Gupta, 1999; Hochschild, 1989; Shelton & John, 1993; South & Spitze, 1994). One of them is women's increased labor force participation, which decreased women's time to perform traditional work at home and put pressure on men to take more responsibilities for it (Bianchi et al., 2000). Another is the sharp growth in unmarried living arrangements (Gupta; Shelton & John; South & Spitze). It is important to study housework in the context of cohabitation for two reasons. First, the dramatic increase in the number of cohabiting couples suggests that marriage no longer represents the only acceptable living arrangement (Seltzer, 2000). Second, housework is an essential part of living regardless of household structure. People carry the experiences and expectations of household labor with them as they move into new living arrangements. Therefore, it is im-

portant to examine patterns of housework and the experience of cohabitants in dividing it (Shelton & John).

South and Spitze (1994) summarize three theoretical core perspectives regarding the division of household labor over the past 20 years (see also Shelton & John, 1993). The time availability argument suggests that the partner with the most available time will most likely take the largest share of household tasks. According to Becker (1981), husbands and wives allocate time to the marketplace and to home duties on the basis of their relative productivity in each sphere. The resource-power perspective suggests that women's influence in family decision making is limited by their lower relative status and income. Thus, husbands' income is positively associated with wives' time spent on housework and women's income has the opposite effect (Maret & Finlay, 1984). However, wives' employment status has little or no effect on husband's family work time (Berk & Berk, 1979), and wives assume the bulk of family responsibilities even in dual-income families (Presser, 1994). A final explanation focuses on socialization and gender role attitudes, suggesting that husbands and wives perform household labor according to what they have learned about appropriate behavior for men and women (Hiller, 1984).

Several new developments in the study of household labor are relevant for our purposes (Coltrane, 2000). The first one, *doing gender,* is a challenge to the gender-neutral approach adopted by the time availability and resource-power models, and to the rigidity of the socialization perspective (Gupta, 1999; South & Spitze, 1994; Twiggs, et al., 1999). Berk (1985) applied this perspective to the household division of labor, describing the marital household as a "gender factory" in which housework "produces" gender through everyday performance (see also Brines, 1994; Greenstein, 2000). The second development considers institutional influences to provide "a more comprehensive explanation for gender stratification by relying on various levels of analysis and postulating an interplay among technological, market, political, cultural, interactional, and personal factors in the distribution of labor" (Coltrane, 2000, p. 1214). Baxter (1997) applies this approach in her cross-national study of gender equality and participation in housework, finding that men in Sweden contribute significantly more than their counterparts in the United States, Norway, and Canada.

These approaches have been used to explain

trends in the gender division of housework. Empirical studies that span the last several decades find that women are doing less housework whereas men are doing slightly more (Bianchi et al., 2000; Vannoy et al., 1999). However, despite men's greater contribution, women still do at least twice as much routine housework as men do (Bittman & Pixley, 1997; Coltrane, 2000; Maddock, Hogan, Antonov, & Matskovsky, 1994). In the former socialist countries, state policy pursued gender equality by increasing women's access to paid work but for the most part ideological claims were not matched with women's achieved equality (Lobodzinska, 1995; Vannoy et al.). Moreover, the survival of many families depended on both incomes, so women's employment was largely driven by necessity (Maddock et al., 1994). Although state policy facilitated the inclusion of women in the labor force, the state on the whole did not interfere in the private sphere, where housework remained women's work (Lobodzinska). In the late 1980s, about 70% of Russian women respondents said they should do all of the household tasks alone even if there were the opportunity of hiring outside help. On the other hand, men claimed to support their wives' aspirations for having careers (Maddock et al., 1994), but did little to take part in the second shift. Social and economic upheaval after *perestroika* exacerbated families' financial situations, leading "to an even greater emphasis on traditional gender stereotypes in the family" (Vannoy et al., p. 7; see also Lobodzinska). Thus, similar to their Western counterparts (Brines, 1994), wives and husbands in the postsocialist countries may use a rigid household division of labor to shore up traditional gender relations.

Studies of American couples find that cohabiting men are not significantly different in doing housework from their married counterparts. However, although women in both types of unions do more work than their partners, cohabiting women do less housework than married women (Blair & Lichter, 1991; Shelton & John, 1993; South & Spitze, 1994; but see also Gupta, 1999). Gupta's longitudinal analysis (1999) indicates that men substantially decrease their housework contributions when they enter either marriage or cohabitation. Women, on the other hand, increase their time under the same circumstances and the magnitude of these gender-specific effects is about the same for the cohabiting and married unions. In addition, he finds that the transition from cohabi-

tation to marriage produces no effect on the gender division of housework time.

METHOD

Data

We use data from the International Social Survey Programme, a cross-national collaboration in which independent institutions replicate survey questions in their own countries (Zentralarchiv für Empirische Sozialforschung, 2001). We use data from 22 nations in the 1994 data collection (excluding the Philippines, the most underdeveloped of the countries, and Spain, for which there were too much missing data). We include only currently married respondents, each of whom was asked about his or her household's division of labor, personal characteristics and attitudes, and spouse characteristics. After removing cases with missing values on key variables, we are left with a sample of 17,849. The countries contribute between 298 (Northern Ireland) and 1,418 (West Germany) cases.

Dependent Variable

A majority of housework studies distinguish between different types of household tasks. On one hand, there are so-called routine tasks that are very time-consuming and less pleasant, including doing laundry, cleaning up after meals, shopping for groceries, and cooking. On the other hand, there are *occasional household tasks* such as household repairs and yard care, which are more flexible and enjoyable (Coltrane, 2000). Many women and men consider the former women's responsibility and the latter men's responsibility (Blair & Lichter, 1991; Hochschild, 1989). Consistent with this prior research, we analyze the distribution of labor for those female-typed tasks.

We measure the division of labor for both accomplishment and management of household tasks (Mederer, 1993). Accomplishment tasks include laundry, shopping for groceries, and caring for the sick; management includes deciding what to have for dinner. We do not distinguish between the two categories because the data do not include any other management tasks. By focusing on the division of labor for female chores, which are routine and ongoing, we can identify the extent of egalitarianism in the sharing of household responsibilities. In other words, husbands doing more fe-

male tasks suggest improving gender equality at home.

Our measure of the *gender division of labor* within couples, therefore, is an index of four female task variables: asking who usually does laundry, cares for sick family members, does shopping, and plans dinner. Each variable takes on values from 1 (*when the wife* always *does the task*) to 5 (*when the husband* always *does the task*). We sum the variables and divide by 4 to produce a scale that ranges from 1 to 5, with higher scores reflecting greater household contributions by the husband. The method used to construct this dependent variable is similar to that used by Baxter (1997) and Mederer (1993).

In fewer than 1% of cases, respondents reported that someone else usually did the task, which could refer to other family members, extended household members, or domestic workers. In these cases, we recoded the response to the middle category, indicating husband and wife contribute equally. In 5.5% of cases, one or more questions from the housework index have missing values. In those cases, we divide the sum of the questions by the number of questions that have complete information. Complete information is obtained from a low of 88% of cases in Poland to a high of 98% of cases in Ireland. The result is a variable that is reasonably normally distributed, with a mean of 2.04 across the sample, a skewness of .10 and a kurtosis of −.11. (In all countries except East Germany and Japan, the skewness and kurtosis of the measure are between 1.0 and −1.0. Japan is a particular outlier, the only country with both skewness [1.15] and kurtosis [1.71] outside this range. We address the role of Japan as an outlier below.)

Independent Variables

Couple-level variables. The primary independent variable at the household level, *cohabited before marriage,* is a dummy variable indicating whether the couple lived together before they were married. In models for the division of labor, we control for factors previously found to affect the household division of labor (e.g., Brines, 1994; Presser, 1994; South & Sptize, 1994) as best we can with this dataset. We control for *age* and its square, for whether the respondent *attended college or higher,* for the extent to which the *wife earns more money* than the husband, for whether the *husband works full-time* and the *wife works full-time,* and for the strength of the respondent's

TABLE 1. COUPLE DESCRIPTIVE STATISTICS

Variable	M	SD	Min	Max
Division of labor	2.04	0.62	1	5
Cohabited before marriage	0.29	0.46	0	1
Age	46.73	13.86	17	98
Husband respondent	0.47	0.50	0	1
Finished college	0.25	0.43	0	1
Wife earns more money[a]	1.88	0.90	1	5
Money variable missing	0.35	0.48	0	1
Separate spheres ideology[b]	2.91	1.00	1	5
Husband works full-time	0.67	0.45	0	1
Wife works full-time	0.38	0.47	0	1

[a]Coded from 1 = *husband earns much more than wife* to 5 = *wife earns much more than husband.* [b]An index agreement with the three statements: "A job is all right but what most women really want is home and children;" "Being a housewife is just as fulfilling as working for pay;" and, "A man's job is to earn money; a woman's job is to look after the home and family," with higher scores representing more liberal attitudes.

separate spheres ideology. Because either the husband or wife in each household may be the respondent, and husbands tend to overestimate their share of housework (Baxter, 1997; Hochschild, 1989; Vannoy et al., 1999), we control for the *sex* of the respondent in all models.

In the absence of actual earnings, the *wife earns more money* variable is a scale ranging from 1, when the respondent reports that the husband earns *much more* than the wife, to 5, when the wife earns *much more* than the husband. We chose to include this variable even though it had a high number of missing values but include a dummy variable to indicate nonresponse. The separate spheres ideology variable is an index of three variables, measuring level of agreement with the statements: "A job is all right but what most women really want is home and children," "Being a housewife is just as fulfilling as working for pay," and, "A man's job is to earn money; a woman's job is to look after the home and family." We sum the scores and divide by 3, except in cases where not all the questions were answered (8.3% of the total), for which we divide by the number answered. The Cronbach's alpha coefficient for the scale is .68. The couple-level variables for all countries combined are shown in Table 1.

Country-level variables. Given the small number of countries, complicated models are not feasible at the country level. We test the effects of two contextual variables: the cohabitation rate and the Gender Empowerment Measure. The *cohabitation*

Table 2. Country Descriptive Statistics

Country	*N*	% Ever Cohabited[a]	Gender Empowerment[b]	Average Division of Labor
Norway	1,113	26.1	0.790	2.26
United States	705	23.6	0.675	2.26
Sweden	654	32.4	0.790	2.25
Canada	723	26.3	0.720	2.25
East Germany	717	16.1	0.694	2.23
Israel	911	16.3	0.484	2.22
New Zealand	664	18.4	0.725	2.13
Great Britain	477	18.4	0.593	2.11
Slovenia	659	14.1	0.475	2.07
Hungary	887	14.5	0.491	2.06
West Germany	1,418	18.8	0.694	2.05
Netherlands	1,073	15.1	0.689	2.04
Australia	1,221	11.0	0.664	2.03
Russia	1,262	26.7	0.426	2.00
Bulgaria	731	18.1	0.462	2.00
Poland	1,021	8.4	0.494	1.97
Northern Ireland	298	7.0	0.593	1.95
Czech Republic	651	32.1	0.527	1.94
Austria	595	20.4	0.686	1.89
Ireland	550	5.2	0.554	1.83
Italy	631	5.2	0.521	1.74
Japan	888	3.3	0.472	1.50
Total *N*	17,849			

[a]Percentage of all adults who report ever having cohabited with a partner outside of marriage. [b]An index of the percentage of parliamentary seats held by women, the percentage of administrators and managers who are women, the percentage of professional and technical workers who are women, and women's share of earnings income.

rate, derived from the International Social Survey Programme, represents the proportion of all adults (not just the married respondents in our sample) who report ever having cohabited with a partner outside of marriage. Countries' Gender Empowerment Measure is taken from the *Human Development Report,* United Nations Development Program (UNDP, 1998). It is an index calculated from the percentage of parliamentary seats held by women, the percentage of administrators and managers who are women, the percentage of professional and technical workers who are women, and women's share of earnings income. Higher scores indicate greater levels of empowerment for women. The gender empowerment measure reported in 1998 was based on data from various years prior to 1998. Several adjustments were necessary to match our countries. Northern Ireland was given the score for Great Britain (almost identical to the score for Ireland); East and West Germany are given the same score. A gender empowerment measure score for Russia was first calculated for the 2000 report (UNDP, 2000), and we use that score here. The countries, sample sizes, cohabitation rate, gender empowerment measure, and average division of labor, are presented in Table 2.

Analytical Strategy

We use hierarchical linear models (Bryk & Raubenbush, 1992) to test questions about the gender division of labor in married couples at two levels. At the individual level, we test the effect of premarital cohabitation in all 22 countries, controlling for the variables mentioned above. In the country level model, we test two questions. First, does the intercept of the individual level equation vary across countries and do our country-level measures of cohabitation rate and gender empowerment measure explain that variance? Second, does the effect of premarital cohabitation itself vary across countries and how can our country level variables help explain that variance?

The equation for the couple-level is:

$$Y_{ij} = \beta_0 + \beta_{1j}C_{ij} + \Sigma\beta_{kj}X_{ikj} + R_{ij}$$

Where Y_{ij} equals the gender division of labor in household i and country j, and β_0 is the couple-level intercept. C_{ij} is a dummy variable indicating whether the couple lived together before marriage; X_{ikj} is the set of couple-level control variables and β_{kj} is the vector of coefficients associated with the control variables. Finally, R_{ij} is the level-1 error

term, assumed to be normally distributed with zero mean and constant variance.

The complete country level equation is:

$$\beta_{0j} = \gamma_{00} + \gamma_{01}(\text{Cohabitation rate}_j)$$
$$+ \gamma_{02}(\text{GEM}_j) + U_{0j}$$

$$\beta_{1j} = \gamma_{10} + \gamma_{11}(\text{Cohabitation rate}_j)$$
$$+ \gamma_{12}(\text{GEM}_j) + U_{1j}$$

$$\beta_{kj} = \gamma_k$$

Where γ_{00} is the intercept for the country level model of gender division of labor; γ_{01} is the effect of country cohabitation rate on β_{0j} and γ_{02} is the effect of gender empowerment measure on β_{0j}. The same model is applied to the effect of premarital cohabitation. Finally, U_{0j} and U_{1j} are the error terms at the country level, and γ_k is the constant coefficients β_k across all countries (that is, couple-level control variables have fixed effects across countries). In the models, couple-level control variables and all variables at the country level are centered at their grand means, so the intercept is interpreted as the average division of labor in a couple with average couple characteristics that did not cohabit before marrying in a country with average country characteristics.

RESULTS

A score of 3.0 represents an equal division of labor on the scale of 1 to 5. Table 2 shows that no country has an average division of labor score greater than 2.26 (Norway and the U.S.A.), and seven countries have scores lower than 2.0, with Japan's 1.50 at the bottom. Figure 1 (top panel) shows the average household gender division of labor in each country, plotted against the percentage of adults who ever cohabited outside of marriage. The correlation between division of labor and cohabitation rate is .63 ($p < .01$). The figure shows a clustering of Western European countries and the U.S.A. on the (relatively) egalitarian end of the housework distribution but with a wide range of cohabitation rates. Similarly, the Eastern European countries are all in the middle range on the division of labor but have cohabitation rates ranging from 8% in Poland to 27% in Russia. Cohabitation rates may explain only some of the variation in the housework division of labor.

The bottom panel of Figure 1 shows the divi-

sion of labor by Gender Empowerment Measure, with higher scores representing greater empowerment for women. The correlation between the two measures is .54 ($p < .05$). The pattern here may explain some of the cohabitation rate's failure to account for variance in the division of labor. Note that most of the former Soviet bloc countries exhibit low gender empowerment measure scores and most of the Western European countries have high scores. (The two independent variables, cohabitation rate and gender empowerment measure, are moderately correlated [$r = .41$, $p = .06$].)

These national-level correlations cannot sort out the direct effect of cohabitation on the average division of labor in the country from the indirect effect of the cohabitation rate or other factors on married couples in general. For that we turn to the results of the hierarchical linear model analysis, shown in Table 3.

The table shows four models, as variables are added at both the couple and country level. The first model includes only the variable for premarital cohabitation and permits the coefficient and the intercept to vary across the 22 countries. The average division of labor for couples that did not cohabit is 1.996, with a positive cohabitation effect of .139 across all countries. The variance components show that both the intercept and the cohabitation effect vary across countries in the sample.

Couple-level control variables are added to the second model, all centered at their grand means, with effects fixed across all countries. Adding the couple control variables reduces the cohabitation effect from .139 to .080, or 42%. Thus, about two-fifths of the effect of cohabitation on the married couple division of labor is accounted for by the control variables. These variables all have effects in the expected direction. Respondents with more liberal separate spheres attitudes are in couples in which husbands contribute more housework. Other factors increasing husbands' share are: being younger (to age 47), higher education, the wife earning more money, husbands who do not work full-time, and wives who do work full-time. As anticipated, when husbands respond they report greater housework contributions. (The same could be said of wives if the variable was coded differently—they report higher contributions for themselves. It could also be that husbands who are home to answer interviewers do more housework). The coefficients for these control variables at the couple level do not appreciably change in subsequent models.

FIGURE 1. MARRIED-COUPLE DIVISION OF LABOR, COHABITATION RATE,
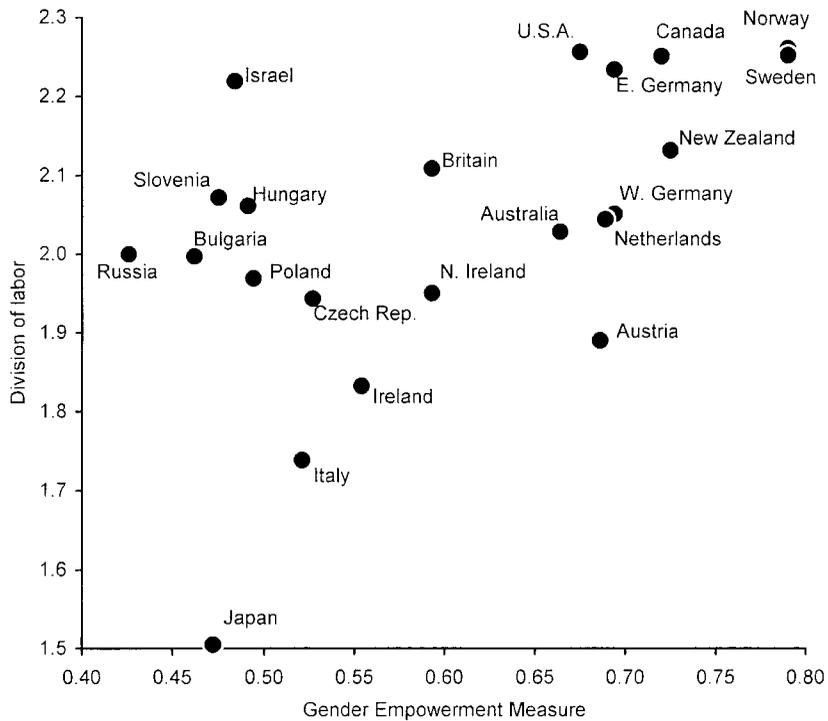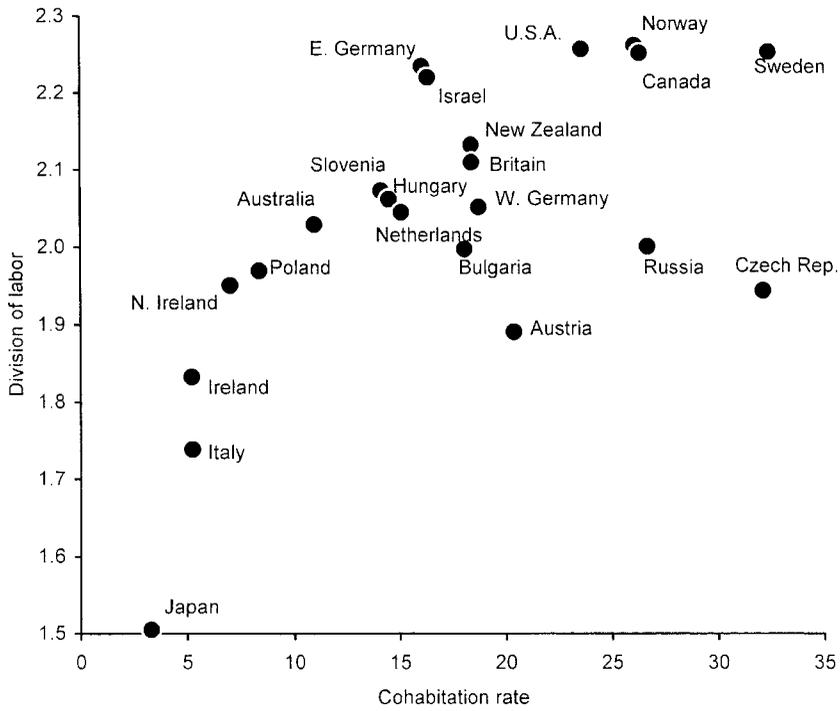AND GENDER EMPOWERMENT MEASURE IN 22 COUNTRIES

TABLE 3. HIERARCHICAL LINEAR MODEL RESULTS FOR COUPLE AND COUNTRY EFFECTS ON THE HOUSEHOLD DIVISION OF LABOR

	Model 1	Model 2	Model 3	Model 4
Intercept	1.996****	2.0110****	2.0110****	2.0110****
Cohabitation rate			0.0110***	0.0080**
Gender empowerment				0.440*
Cohabited before marriage				
Intercept	0.139****	0.0800****	0.0800****	0.0820****
Cohabitation rate			0.0003	−0.0014
Gender empowerment				0.2110*
Age		−0.0280****	−0.0280****	−0.0280****
Age^2		0.0003****	0.0003****	0.0003****
Husband respondent		0.1720****	0.1720****	0.1720****
Finished college		0.0840****	0.0840****	0.0850****
Wife earns more money[a]		0.0460****	0.0460****	0.0470****
Money variable missing		−0.0650****	−0.0640****	−0.0650****
Separate spheres ideology[b]		0.0740****	0.0740****	0.0730****
Husband works full-time		−0.1350****	−0.1350****	−0.1360****
Wife works full-time		0.1170****	0.1170****	0.1170****
Variance components (Remaining between-country variance)				
Intercept	0.0299****	0.02200****	0.0147***	0.0132****
Percent explained		27	51	56
Cohabited before marriage	0.0019***	0.0011*	0.0012*	0.0007**
Percent explained		41	36	62

[a]Coded from 1 = *husband earns much more than wife* to 5 = *wife earns much more than husband*. [b]An index agreement with the three statements: ''A job is all right but what most women really want is home and children;'' ''Being a housewife is just as fulfilling as working for pay;'' and, ''A man's job is to earn money; a woman's job is to look after the home and family,'' with higher scores representing more liberal attitudes.

*p < 0.1. **p < .05. ***p < .01. ****p < .001.

Models 3 and 4 introduce country level measures to explain the variance in the intercept and cohabitation effect. Because the effects on cohabitation coefficient are not significant, we focus on the country level effects on the intercept. These show that, controlling for couple-level cohabitation experience and attitudes, both overall cohabitation and gender empowerment levels affect the division of labor within married couples. That is, even couples that did not cohabit before marriage have a more egalitarian division of labor in countries that have higher cohabitation rates and higher gender empowerment measure scores.

The magnitude of the effects is important here. Figure 2 shows predicted household division of labor at the mean of all control variables. The top panel shows predicted household division of labor in couples that cohabited before marriage and those that did not, as the country cohabitation rate increases from 3% to 33%. In Model 4, the statistical effect of cohabiting at the couple level is .082. The statistical effect of a 1% change in the country cohabitation rate is .008. So, the predicted effect of cohabiting is equal to moving to a country with an 8% higher cohabitation rate. Thus, a couple that cohabited before marriage is predicted

to have only a slightly more egalitarian division of labor (+.082), once other factors are controlled. But that same hypothetical couple would see twice that effect if they were in Sweden instead of Israel, which have a 16-point difference in cohabitation rates.

Country gender empowerment measure scores have a significant effect on the intercept but the magnitude of the effect is small. However, because it has a positive effect on the premarital cohabitation coefficient, the effect of the gender empowerment measure is much greater for couples that cohabited before marriage. This relationship is shown in the bottom panel of Figure 2, which shows predicted division of labor, calculated from Model 4, at the mean of all other variables. This interaction shows that cohabitation's effect is concentrated on couples in the high gender empowerment measure countries.

Finally, changes in the variance components are instructive as well. Adding couple-level controls reduces the cross-country variance in the intercept by 27% and the variance in the cohabitation effect by 41%. Subsequent models account for an additional 29% of the variance in the intercept and 21% of the cohabitation effect. Thus,

FIGURE 2. PREDICTED HOUSEHOLD DIVISION OF LABOR, BY PREMARITAL COHABITATION, COUNTRY COHABITATION RATE, AND GENDER EMPOWERMENT MEASURE
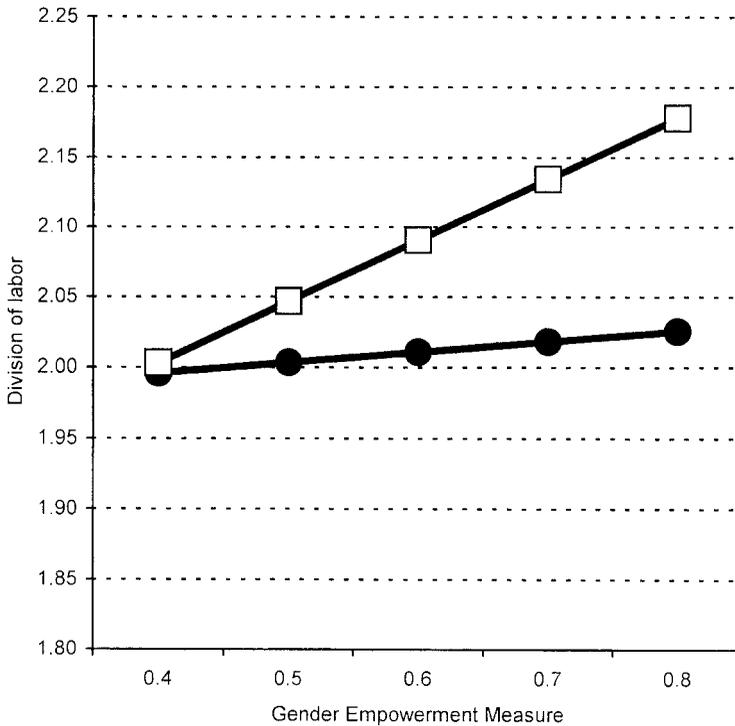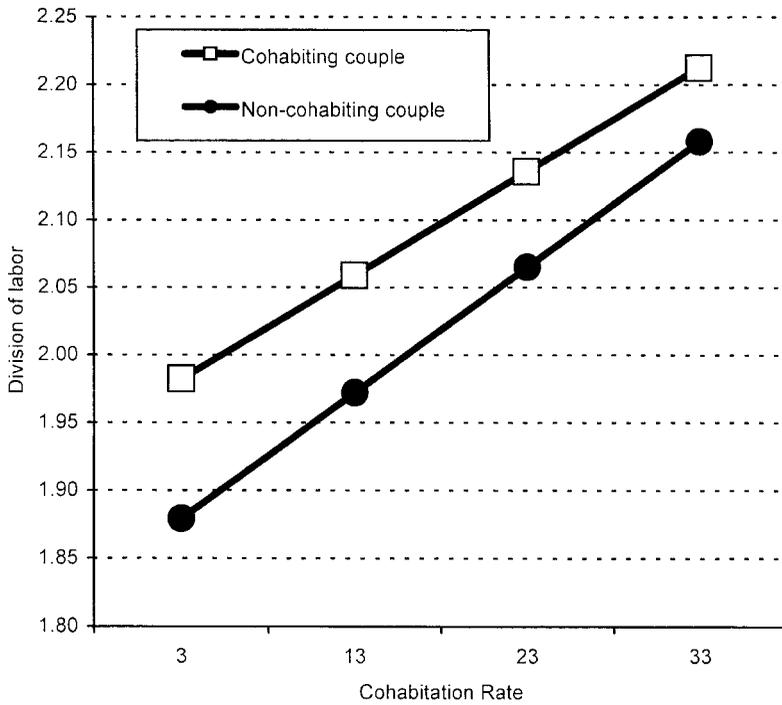
our two country level measures account for a greater share of the variance in housework division of labor across countries than do the controls we introduce at the couple level.

As noted, Japan is a particular outlier on several measures. In addition to the nonnormal distribution of the dependent variable in Japan, it is the only country with any score more than two standard deviations from the country mean—its division of labor score of 1.50 is 2.85 standard deviations below the mean. On the other hand, as a wealthy developed country it is logically included with the other countries here. To test the sensitivity of the multivariate analysis to the inclusion of Japan, we reran the hierarchical linear models excluding Japan. In the test, the cohabitation rate effect in Model 4 was reduced from .008 to .006, and the p value increased to .105. The effect of the Gender Empowerment Measure was also reduced from .440 to .358 but remained significant at the .10 level. We conclude that Japan's inclusion is justified because the substantive effects are the same—if somewhat weaker—when it is excluded and because it is logically part of the universe of countries under study.

DISCUSSION

In this article we have examined the relationship between premarital cohabitation and the gender division of household labor in cross-national perspective. Our results indicate that both couple-level and national contextual variables are associated with the division of labor. Couples' premarital cohabitation experience appears to contribute to greater equality in the sharing of housework. This is consistent with the suggestion that former cohabitors bring more egalitarian expectations and experiences to their subsequent marriages.

As in previous research, we find that other couple-level variables, such as liberal separate sphere attitudes, younger age, and higher education, are conducive to a more equal division of labor. In addition, married couples in which wives earn more money, work full-time, or where husbands do not work full-time, have a more egalitarian division of housework. However, even controlling for these variables at the couple level, there are substantial variations between countries in the household division of labor.

We find that women do more routine housework than men in all 22 countries, Japan being on one end of the continuum and Norway and the U.S. on the other. There is support for a contextual-level process concerning cohabitation level and women's empowerment at the national level, even controlling for cross-national differences in couple-level variables. Even if couples did not cohabit before marriage, they have a more egalitarian division of labor if they live in countries with higher cohabitation levels and higher Gender Empowerment Measure scores.

We suspect that places that are more tolerant of cohabitation may in fact also perpetuate norms that lend themselves to a more egalitarian division of labor (Brines & Joyner, 1999; Lesthaeghe & Surkyn, 1988). However, nations' cohabitation rates may also be associated with cultural differences, gender attitudes, and other demographic characteristics that are not modeled here. Similarly, how exactly gender empowerment as measured here leads to a more egalitarian division of labor within married couples cannot be resolved by this analysis. Women in countries with greater representation of women in government, administration, and the professions might have more bargaining power within marriages. Norms about the division of labor may also be affected by women's visibility in positions of public authority and prestige. But it is also possible that this measure is in part picking up unobserved differences at the couple level, such as women's relative earnings, which are measured imprecisely in our data. The specific mechanism for both of these findings thus remains to be found.

Our results differ from those of Baxter (1997), who finds little variation among Sweden, the United States, Canada, Norway, and Australia in the gender division of housework. She concludes, ''The gender division of labor is not closely tied to broader levels of gender equality. The household division of labor appears resilient to broader macro-level variation'' (p. 240). Baxter's results may be explained by the relative homogeneity of the five countries in terms of gender equality. With more countries in the analysis, country level variation becomes more apparent.

In terms of our basic questions, then, two broad conclusions stand out. The first is that the trend toward cohabitation may be considered part of a broader trend toward a more egalitarian division of household labor, seen in noncohabiting as well as cohabiting couples (although the causal mechanisms are not clear). The second is that cohabitation does not have the same observed effect across all national contexts. The Eastern European countries that have high cohabitation rates but low gender empowerment scores, for example, do not

have household divisions of labor to match the Western countries with similar cohabitation rates. This may reflect cross-national diversity in the causes of increased cohabitation rates, which may result from more egalitarian gender relations, or from norms regarding sexuality or from housing conditions (Maddock & Kon, 1994; Shlapentokh, 1984). The ideological backlash against state socialism's failure to reduce some gender inequalities (Lobodzinska, 1995) is just one example of how political context might condition the effect of cohabitation on the gender division of labor. Our findings regarding women's empowerment at the national level suggest that the meaning and implication of cohabitation is conditioned by the social context of gender inequality. Researchers should not assume that cohabitation universally represents a trend toward more egalitarian gender relations.

REFERENCES

Baxter, J. (1997). Gender equality and participation in housework: A cross-national perspective. *Comparative Family Studies, 28,* 220–248.

Becker, G. (1981). *A treatise on the family.* Chicago: University of Chicago Press.

Berk, S. F. (1979). Husbands at home: The organization of the husbands' household day. In K. Feinstein (Ed.), *Working women and families* (pp. 125–158). Beverly Hills, CA: Sage.

Berk, S. F. (1985). *The gender factory.* New York: Plenum.

Bianchi, S. M., Milkie, M. A., Sayer, L. C., & Robinson, J. P. (2000). Is anyone doing the housework? Trends in the gender division of household labor. *Social Forces, 79,* 191–228.

Bittman, M., & Pixley, J. (1997). *The double life of the family. Myth, hope, and experience.* Sydney: Allen and Unwin.

Blair, S. L., & Lichter, D. T. (1991). Measuring the household division of labor: Gender segregation of housework among American couples. *Journal of Family Issues, 12,* 91–113.

Blumstein, P., & Schwartz, P. (1983). *American couples: Money, work, sex.* New York: William Morrow.

Brines, J. (1994). Economic dependency, gender, and the division-of-labor at home. *American Journal of Sociology, 100,* 652–688.

Brines, J., & Joyner, K. (1999). The ties that bind: Commitment and stability in the modern union. *American Sociological Review, 64,* 333–356.

Bryk, A. S., & Raudenbush, S. W. (1992). *Hierarchical linear models: Applications and data analysis methods.* Newbury Park, CA: Sage.

Bumpass, L. L., & Lu, H. (1999). *Trends in cohabitation and implications for children's family contexts in the U.S.* (CDE Working Paper No. 98–15). Madison, WI: Center of Demography and Ecology, University of Wisconsin-Madison.

Casper, L. M., & Cohen, P. N. (2000). How does POSSLQ measure up? New historical estimates of cohabitation. *Demography, 37,* 237–245.

Casper, L. M., & Sayer, L. C. (2000, March). *Cohabitation transitions: Different attitudes and purposes, different paths.* Paper presented at the annual meeting of the Population Association of America, Los Angeles, CA.

Cherlin, A. (1991). *Marriage, divorce, remarriage.* Cambridge, MA: Harvard University Press.

Cherlin, A. (2000). Toward a new home socioeconomics of union formation. In L. Waite, C. Bachrach, M. Hindin, E. Thomson, & A. Thornton (Eds.), *Ties that bind: Perspectives on marriage and cohabitation* (pp. 126–144). Hawthorne, NY: Aldine de Gruyter.

Clapham, D. (1995). Privatization and the East European housing model. *Urban Studies, 32,* 679–694.

Clarkberg, M., Stolzenberg, R., & Waite, L. (1995). Attitudes, values, and entrance into cohabitation versus marital unions. *Social Forces, 74,* 609–634.

Coltrane, S. (2000). Research on household labor: Modeling and measuring the social embeddedness of routine family work. *Journal of Marriage and the Family, 62,* 1247–168.

Greenstein, T. N. (2000). Economic dependence, gender, and the division of labor in the home: A replication and extension. *Journal of Marriage and the Family, 62,* 322–335.

Gupta, S. (1999). The effects of marital status transitions on men's housework performance. *Journal of Marriage and the Family, 61,* 700–711.

Hiller, D. (1984). Power dependence and division of family work. *Sex Roles, 10,* 1003–1019.

Hochschild, A. (1989). *The second shift.* New York: Viking.

Hoem, B. (1995). Sweden. In H. Blossfeld (Ed.), *The new role of women: Family formation in modern societies* (pp. 35–55). Boulder, CO: Westview Press.

Lesthaeghe, R. (1983). A century of demographic and cultural change in Western Europe: An exploration of underlying dimensions. *Population and Development Review, 9,* 411–435.

Lesthaeghe, R., & Surkyn, J. (1988). Cultural dynamics and economic theories of fertility change. *Population and Development Review, 14,* 1–45.

Lobodzinska, B. (Ed.). (1995). *Family, women, and employment in Central-Eastern Europe.* Westport, CT: Greenwood Press.

Lye, D., & Waldron, I. (1997). Attitudes toward cohabitation, family, and gender roles: Relationships to values and political ideology. *Sociological Perspectives, 40,* 199–225.

Maddock, J. M., Hogan, M. J., Antonov, A. I., & Matskovsky M. S. (Eds.). (1994). *Families before and after perestroika: Russian and U.S. perspectives* (pp. 156–185). New York: Guilford.

Maddock, J. W., & Kon, I. (1994). Sexuality and family life. In J. M. Maddock, M. J. Hogan, A. I. Antonov, & M. S. Matskovsky (Eds.), *Families before and af-*

ter perestroika: Russian and U.S. perspectives (pp. 96–134). New York: Guilford.

Maret, E., & Finlay, B. (1984). The distribution of household labor among women in dual-earner families. *Journal of Marriage and the Family, 46,* 357–364.

Mederer, H. J. (1993). Division of labor in two-earner homes—task accomplishment versus household management as critical variables in perceptions about family work. *Journal of Marriage and the Family, 55,* 133–145.

Oppenheimer, V. (1988). A theory of marriage timing. *American Journal of Sociology, 94,* 563–591.

Popenoe, D. (1993). American family decline, 1960–1990: A review and appraisal. *Journal of Marriage and the Family, 55,* 527–542.

Presser, H. B. (1994). Employment schedules among dual-earner spouses and the division of household labor by gender. *American Sociological Review, 59,* 348–364.

Prinz, C. (1995). *Cohabiting, married, or single: Portraying, analyzing, and modeling new living arrangements in the changing societies of Europe.* Aldershot: Avebury.

Raley, R. K. (1996). A shortage of marriageable men? A note on the role of cohabitation in Black-White differences in marriage rates. *American Sociological Review, 61,* 973–983.

Seltzer, J. (2000). Families formed outside of marriage. *Journal of Marriage and the Family, 62,* 1247–1268.

Shelton, B., & John, D. (1993). Does marital status make a difference? *Journal of Family Issues, 14,* 401–420.

Shlapentokh, V. (1984). *Love, marriage, and friendship in the Soviet Union: Ideals and practice.* New York: Praeger.

Smock, P. J. (2000). Cohabitation in the United States: An appraisal of research themes, findings, and implications. *Annual Review of Sociology, 26,* 1–20.

South, S., & Spitze, G. (1994). Housework in marital and nonmarital households. *American Sociological Review, 59,* 327–347.

Thomson, E., & Colella, U. (1992). Cohabitation and marital stability: Quality or commitment? *Journal of Marriage and the Family, 54,* 259–267.

Thornton, A., Axinn, W. G., & Hill, D. (1992). Reciprocal effects of religiosity, cohabitation, and marriage. *American Journal of Sociology, 98,* 628–651.

Twiggs, J., McQuillan, J., & Marx Ferree, M. (1999). Meaning and measurement: Reconceptualizing measures of the division of household labor. *Journal of Marriage and the Family, 61,* 712–724.

United Nations Development Program. (1998). *Human development report.* New York: Oxford University Press.

United Nations Development Program. (2000). *Human development report.* New York: Oxford University Press.

Vannoy, D., Rimashevskaya, N., Cubbins, L., Malysheva, M., Meshterkina, E., & Pisklakova, M. (1999). *Marriages in Russia: Couples during the economic transition.* Westport, CT: Praeger.

Waite, L. J., & Gallagher, M. (2000). *The case for marriage: Why married people are happier, healthier, and better off financially.* New York: Doubleday.

Wiersma, G. (1983). *Cohabitation, an alternative to marriage? A cross-national study.* Boston: Martinus Njhoff.

Zentralarchiv für Empirische Sozialforschung. (2001). *The International Social Survey Programme.* Distributed from the University of Cologne. Retrieved February 15, 2001, from http://www.gesis.org/en/data_service/issp/