Published in final edited form as:

J Marriage Fam. 2012 October ; 74(5): 944–952. doi:10.1111/j.1741-3737.2012.01007.x.

The Division of Household Labor: Longitudinal Changes and Within-Couple Variation

Chun Bun Lam, Susan M. McHale, and Ann C. Crouter

The Pennsylvania State University

Abstract

This study examined how the division of household labor changed as a function of marital duration and whether within-couple variation in spouses' relative power and availability were linked to within-couple variation in the division of labor. On 4 occasions over 7 years, 188 stably married couples reported on their housework activities using daily diaries. Multilevel models revealed that wives' portions of household responsibilities declined over time, and that changes in spouses' relative income and work hours were linked to changes in housework allocation. Wives with husbands who perceived greater marital control, on average, did proportionally more housework, and for couples with husbands who had highly autonomous jobs, changes in spouses' relative psychological job involvement were linked to changes in housework allocation. Findings highlight the importance of understanding household division of labor as a lifespan phenomenon, the distinction between within- versus between-couple associations, and the multidimensional nature of power and availability.

Keywords

division of labor; income; multilevel models; power; work-family balance; work hours

How and why women are responsible for most household tasks remain important topics of investigation by family researchers (Coltrane, 2000; Lachance-Grzela & Bouchard, 2010). Most prior studies, however, have been cross-sectional or short-term longitudinal, and little is known about how the division of household labor changes over the course of marriage. Prior studies have also tended to neglect stable family characteristics or selection effects as well as potentially important interpersonal and psychological processes that may affect housework allocation. In this study, we addressed some of these gaps in the literature by examining how the division of household labor changed as a function of marital duration and whether within-couple variation in spouses' relative power and availability were linked to within-couple variation in the division of household labor.

The Division of Household Labor Over Time

Although cross-sectional (Rexroat & Shehan, 1987) and cross-cohort (Bianchi, Milkie, Sayer, & Robinson, 2000; Sayer, 2010) comparisons suggest that the division of household labor varies across age groups and across historical periods, only a handful of studies have explored how it changes within the same couples over time. The few studies that examine longitudinal changes focus on important family transitions, such as a child's birth (Gjerdingen & Center, 2005; Katz-Wise, Priess, Hyde, 2010) or a spouse's retirement

Correspondence should be addressed to Chun Bun Lam, Department of Human Development and Family Studies, 106 Beecher Dock House, The Pennsylvania State University, University Park, PA 16802. cxl445@psu.edu.

Portions of this article were presented at the National Council on Family Relations Annual Conference, Orlando, FL, November 2011.

(Solomon, Acock, & Walker, 2004; Szinovacz, 2000), and thus are not informative about how the division of household labor changes over the course of marriage. Artis and Pavalko (2003) used two waves of longitudinal data from a national sample to show that, controlling for cohort differences, the percentage of wives' household responsibilities declined by about 10% over a 13-year period. Because Artis and Pavalko used questionnaires to assess only wives' perceptions of household division of labor, however, their results may be subject to memory and response biases (Lachance-Grzela & Bouchard, 2010). We expanded upon this work by using daily diaries to assess husbands' and wives' participation in housework on 4 occasions over a 7-year period and by examining the pattern of change in housework allocation as a function of marital duration. Based on the limited cross-sectional (Rexroat & Shehan, 1987) and longitudinal (Artis & Pavalko, 2003) findings available, we expected that spouses would divide housework more equally over time.

Spouses' Relative Power and Availability

Two important microlevel processes postulated to affect the division of household labor are spouses' relative socioeconomic resources and work hours. Whereas a social exchange perspective (Huston & Burgess, 1979) posits that spouses with more socioeconomic resources (e.g., more income) are better able to buy themselves out of undesirable household chores, a time availability perspective (Coverman, 1985) assumes that couples make rational decisions to assign more housework to the spouse with more free time (i.e., work fewer hours outside the home). Studies in support of these two perspectives have amassed (Coltrane, 2000; Lachance-Grzela & Bouchard, 2010), but nearly all have focused on between-couple variation, which can easily be confounded with stable family characteristics or selection effects that are not accounted for in the analyses. A focus on within-couple variation extends prior research by examining whether changes (i.e., deviations from couples' own norms) in spouses' relative socioeconomic resources and work hours are linked to changes in housework allocation. Associations at this level provide for stronger casual inferences, because they allow us to rule out stable, third variables and selection effects as alternative explanations (Curran & Bauer, 2011).

Aside from socioeconomic resources and work hours, we also examined the less understood links between spouses' marital control and psychological job involvement and the division of household labor. Although socioeconomic resources tap the financial aspect of power, they do not directly measure spouses' interpersonal influences on their partners. There are different ways to gain power in a marital relationship; providing affection and social support to a spouse who needs them, for example, can also engender dependence in the receiver and give power to the provider (van de Rijt & Macy, 2006). Marital control is a more generic concept concerning spouses' overall ability to manage their partners' thoughts and behaviors (Stets, 1993) and may constitute a better indicator of spouses' interpersonal power. Therefore, spouses who have more control over their partners should be able to enforce a more self-favoring division of household labor. In a similar manner, although work hours mark the temporal aspect of availability, they do not necessarily reflect the psychological significance of paid work to an individual (i.e., psychological job involvement; Lodahl & Kejner, 1965). Previous studies have shown that people who report higher levels of job involvement experience more work-family conflict (Michel, Kotrba, Mitchelson, Clark, & Baltes, 2011), perhaps because they ruminate more on work-related issues even when they are not working (Sonnentag & Krueger, 2006). Nevertheless, jobs vary in their degrees of autonomy and self-directedness (Lennon, 1994); jobs that are highly structured in schedules and procedures may leave little room for flexibility and initiative, and thus may limit the issues that can preoccupy workers during off-work time. Therefore, relative job involvement should be associated with lower contributions to household tasks, especially for spouses in highly autonomous jobs.

Control variables

Because the presence of children tends to increase housework demands and spouses' ability to do housework is limited by their physical conditions (Artis & Pavalko, 2003; Bianchi et al., 2000), we controlled for the number of children and husbands' and wives' physical health.

Method

Participants

Participants were 188 predominantly White, middle/working class, married couples from a longitudinal study of family relationships. Recruitment of families took place via letters sent to parents of 4th and 5th grade children in school districts from a northeastern state. The school districts were generally small in size (about 200 students per grade) and served the small cities and rural communities of the region. Families were eligible if the parents were married, both parents were working, and the firstborn child was in the 4th or 5th grade with a sibling 1–4 years younger. The number of families that met our criteria but failed to volunteer was not known, but over 90% of families who contacted our office were eligible and eventually participated. Data collection began in 1995/1996, and the data for the current analyses were drawn from the 1st, 2nd, 3rd, and 7th years (referred to as Times 1 through 4 hereafter) of the study. We excluded 15 families (7.4%) from the original sample, because they either withdrew after Time 1 ($n = 2$, 1.0%), or experienced a spouse's death ($n = 5$, 2.5%) or parental divorce ($n = 8$, 3.9%) between Times 1 and 4. At Time 1, the average age was 38.89 years ($SD = 4.91$) for husbands and 36.73 years ($SD = 3.90$) for wives, and the average marital duration was 13.60 years ($SD = 2.35$). Across Times 1 through 4, an average of 98% of husbands and 93% of wives were employed. Attrition was notably low; at Time 4, more than 95% of the sample was still participating. Attrition analyses comparing couples who participated in all four waves of assessment and those who skipped one or more waves (Miller & Wright, 1995) further indicated that the two groups did not differ in any demographic or substantive variables at Time 1.

Although our sample was not representative of all married couples in the US, it came close to capturing the racial background of the region where the study was conducted (> 85% European American; US Census Bureau, 2000). Moreover, reflecting the educational background of the region (87% of adults completed high school; US Census Bureau, 2000), the average level of education at Time 1 was 14.62 years ($SD = 2.14$) for mothers and 14.73 years ($SD = 2.41$) for fathers (where a score of 12 signified a high school graduate). At Time 3 (1997/1998), the median family income of our sample was \$62,000, higher than the median family income of the region (\$49,184; US Census Bureau, 2000). Nevertheless, because our recruitment procedures were designed to sample married-couple families with children in early adolescence and middle childhood, which constituted less than 30% of all family households in the region (US Census Bureau, 2000), the income figures were likely to be reflective of the socioeconomic characteristics of the targeted population (i.e., two-earner couples who were older and participated in the labor force for a longer period of time).

Procedures

We collected data using two methods. First, trained interviewers visited families to conduct home interviews. Husbands and wives gave informed consent, and then reported individually on family relationships and work characteristics. Second, in the 2 to 3 weeks following the home interviews, trained interviewers telephoned families to conduct phone interviews. Because time use patterns differ on weekdays versus weekend days (Robinson &

Godbey, 1997), the phone interviews were scheduled on three weekdays and one weekend day to capture spouses' usual participation in housework. Husbands and wives reported independently on a list of 13 housework activities (e.g., doing laundry, grocery shopping, taking out garbage), and were prompted for the duration and social contexts for any completed activities. Families received \$100 at Times 1 and 2, and \$200 at Times 3 and 4, for participating.

Measures

The time use measures described below were collected in the phone interviews; all other measures were collected in the home interviews. Reports were aggregated such that higher scores reflect more time spent on household tasks or higher levels of the constructs.

Outcome variables—Time spent on core housework was measured with 4-day diaries. At Times 1 through 4, wives and husbands reported how much time (in minutes) they had spent on four core household tasks (i.e., doing dishes, cooking meals, doing laundry, and cleaning the house) during the day. We focused on these tasks, because they are time-consuming, and less optional and enjoyable than other household and child care tasks (Coltrane, 2000; Milkie, Raley, & Bianchi, 2009). The division of household labor was calculated as the percentage of total core housework (done by either spouse across four days) that was done by the wife.

Predictor variables—Income was measured with one item. At Times 1 through 4, wives and husbands reported how much they earned (in thousand dollars) per year. Marital control was measured at Times 2 and 3 with a 10-item measure (Stets, 1993). Wives and husbands rated on a 5-point scale the extent to which they were able to impose their wills onto their spouses (e.g., “I make him/her do what I want,” “I keep him/her from spending time with people that I don’t like”). Cronbach alphas averaged .80 for husbands and .79 for wives. Work hours were measured with three items. At Times 1 through 4, wives and husbands reported how many hours they spent “at work,” “driving to and from work,” and “on work-related activities at home” per week. Psychological job involvement was measured with a 20-item measure (Lodahl & Kejner, 1965). At Times 1 through 4, wives and husbands rated on a 4-point scale the extent to which they psychologically identified with their jobs (e.g., “I live, breathe, and eat my job”) and based their self-esteem on their job performance (e.g., “I feel depressed when I fail at something connected with my job”). Cronbach alphas averaged .80 for husbands and .74 for wives. Job autonomy was measured at Times 2 and 3 with a 5-item measure (Lennon, 1994). Wives and husbands rated on a 4-point scale the extent to which they were able to determine their work schedules (e.g., “You decide when to come to work and when to leave”) and procedures (e.g., “You decide on your own how to go about doing the work”). Cronbach alphas averaged .84 for husbands and .80 for wives. For both job involvement and job autonomy, spouses who were not employed on a particular occasion were coded as missing.

To create scores that represented spousal differences in income, work hours, and psychological job involvement, we subtracted wives' from husbands' scores. To account for the overall levels of these measures and isolate the contribution of spousal differences (Kenny, Kashy, & Cook, 2006), we also controlled for spouses' averages (across wives and husbands) of income, work hours, and job involvement. Because the items in the marital control scale (Stets, 1993) were worded in relative terms, however, both husbands' and wives' scores were included in the analyses to indicate their own perceptions of interpersonal control over their partners.

Control variables—At Times 1 through 4, wives reported the number of children living in the family. At Times 2 and 3, wives rated their own and their spouses' overall physical health with one item on a 5-point scale.

Because husbands' and wives' perceived marital control, job autonomy, and physical health were only measured at Times 2 and 3, these variables were treated as time-invariant predictors/controls and were indicated by the cross-time averages. Because spousal differences in income, work hours, and psychological job involvement were measured at each time point, these variables were treated as time-varying predictors. To distinguish within- from between-couple variations, each of these predictors was indicated by a time-varying, group-mean centered (i.e., centered at each couple's cross-time average) variable as well as the time-invariant, grand-mean centered (i.e., centered at the sample mean), cross-time average. Whereas the time-varying variable captured within-couple variation and indicated how a couple deviated from its own cross-time average at each time point, the cross-time average captured between-couple variation and indicated how a couple's cross-time average was different from other couples'. Because spouses' averages of income, work hours, and job involvement and the number of children were measured at each time point, they were treated as time-varying controls. These time-varying controls, however, were grand-mean centered without including the cross-time averages, as we did not intend to distinguish the within- and between-couple effects of these factors.

Results

Analytic Strategy

Given the nested (i.e., correlated residual errors) and unbalanced (i.e., variable measurement spacing) nature of our data, we used multilevel modeling as the analytic strategy (Raudenbush & Bryk, 2002). A major strength of multilevel modeling is that it accommodates missing data and effectively reduces biases in parameter estimation (Schafer, 1997). We estimated a series of 2-level models using the MIXED procedure in SAS Version 9.1. At Level 1 (within-couple), we included marital duration as the metric of time. Marital duration was centered at 14 years, the approximate mean marital duration at Time 1. Thus, the intercept estimated how housework was allocated among couples in their 14th year of marriage. We also included the group-mean centered versions of the time-varying predictors (i.e., spousal differences in income, work hours, and psychological job involvement) and the grand-mean centered time-varying controls (i.e., spouses' averages of income, work hours, and job involvement and the number of children) at this level. At Level 2 (between-couple), we included the time-invariant predictors (i.e., husbands' and wives' perceived marital control and job autonomy) and time-invariant controls (i.e., husbands' and wives' physical health). We also included the cross-time averages of spousal differences in income, work hours, and job involvement at this level. All the Level-2 variables were grand-mean centered.

We conducted the analyses in two steps: First, we described how the division of household labor changed as a function of marital duration (Model 1). To identify the best error structure, we compared a series of nested models that differed only in the random effect of interest. We used deviance tests (instead of parameter coefficients as in the case of fixed effects) to determine the statistical significance of the random effects (Raudenbush & Bryk, 2002). Because the difference between two nested models in their deviances (i.e., $-2 \log$ likelihood) was chi-squared distributed, it indicated whether adding the random variance component constituted a better error structure. Second, we controlled for the time effect as well as spouses' averages of income, work hours, and psychological job involvement, the number of children, and husbands' and wives' physical health, and examined how spouses' relative power and availability were linked to the division of household labor. Preliminary

analyses indicated that spousal differences in income and work hours were moderately correlated (average $r = .49$). Possibly because a significant number of wives had jobs that were paid hourly, wives' income and work hours were highly correlated (average $r = .64$). To avoid multicollinearity problems (Mason & Perreault, 1991) and, given our goals to test interpersonal power beyond financial power and psychological availability beyond temporal availability, we included power (Model 2) and availability (Model 3) variables in separate models. To guard against inflation of Type I errors, however, a more stringent significance value (i.e., $.05/2 = .025$) was used. We included the interactions between the between- and within-couple terms of spousal differences in job involvement and husbands' and wives' job autonomy in Model 3 to test whether spouses' job autonomy moderated the influence of relative job involvement on the division of household labor. Nonsignificant interactions were dropped, because retaining them would increase the standard errors of the model (Aiken & West, 1991).

Multilevel Models

The best error structure included only the random intercept, as the addition of a random linear term did not significantly improve the model. Parameter coefficients for fixed effects are shown in Table 1. Model 1 revealed a significant effect of time: The division of household labor declined linearly as a function of marital duration (see Figure 1). Because the division of household labor was measured as the percentage of housework done by the wife and marital duration was measured as married years, the coefficient for marital duration ($\gamma = -.008$, $t = -4.34$, $p < .01$) indicated that wives' contributions declined by about 0.8% every year. Model 2 revealed significant between- and within-couple effects of spousal differences in income. On average, wives with husbands who earned relatively more did proportionally more housework, and at times when husbands earned more relative to their wives than usual, wives were responsible for larger portions of household tasks than usual. A significant effect of husbands' perceived marital control also indicated that wives with husbands who perceived greater marital control did proportionally more housework. Model 3 revealed significant between- and within-couple effects of spousal differences in work hours. On average, wives with husbands who worked relatively more hours did proportionally more housework, and at times when husbands worked more hours relative to their wives than usual, wives were responsible for larger portions of household tasks than usual. A significant interaction between the within-couple term of spousal differences in psychological job involvement and husbands' job autonomy, together with follow-up tests, also indicated that, for couples with husbands who had highly autonomous jobs ($\gamma = .004$, $t = 2.75$, $p < .01$), at times when husbands experienced higher job involvement relative to their wives than usual, wives were responsible for larger portions of household tasks than usual. The interaction between the between-couple term of spousal differences in job involvement and husbands' job autonomy and the interactions between spousal differences in job involvement and wives' job autonomy were not significant, and thus were dropped from the model.

Discussion

The Division of Household Labor Became More Balanced Over Time

Our findings closely corroborated those of Artis and Pavalko's (2003) by showing that the proportion of housework done by wives dropped by about 0.8% every year, or about 10% across 13 years. The average level of wives' participation in housework documented in our study (e.g., 79% in the 14th year of marriage), however, was higher than that in Artis and Pavalko's (68% of core household tasks at Time 1). Our daily diaries asked spouses to report how much time they had spent on different household activities during the day, and our estimated level of spouses' division of household labor was consistent with that based

on national diary data collected in the same years (81% among married individuals; Bianchi et al., 2000). On the other hand, Artis and Pavalko's questionnaires asked wives to rate whether or not they were fully responsible for different household tasks, and both questionnaire-based recall (Lachance-Grzela & Bouchard, 2010) and dichotomization of continuous constructs (MacCallum, Zhang, Preacher, & Rucker, 2002) have been shown to contribute to measurement errors. Further, we focused on stable marriages that remained intact throughout our study period, whereas Artis and Pavalkos sampled representative marriages of different lengths, about 15% of which had ended by Time 2. The discrepancies in sample characteristics, possibly including attitudes toward marriage and divorce, may underlie the differences in the estimated levels of the division of household labor.

Because work roles vary over the lifespan, some researchers explain longitudinal changes in housework allocation as an outcome of spouses' being particularly involved in or withdrawn from the labor force at certain times (Rexroat & Shehan, 1987; Solomon et al. 2004; Szinovacz, 2000). Our analyses provided another perspective by documenting that the division of household labor changed over a 7-year period, during which most spouses remained employed, and that the effects of marital duration on the division of household labor remained significant even when time-varying work characteristics were included in the model. Our results can be interpreted in at least two ways: First, as children grow up and become more self-sufficient, housework demands for mothers may decline (Craig & Sawrikar, 2009). Second, some evidence suggests that adults become more supportive of gender egalitarianism over time (Fan & Marini, 2000), and husbands' participation in housework may increase over the course of marriage. Future researchers should explore other family factors, such as the role of children in shaping interparental dynamics (Crouter & Booth, 2003), and gender processes, such as age-graded declines in sex hormones (Worthman, 1995) and parental imperatives (Gutmann, 1997), that may explain longitudinal changes in the division of household labor.

Spouses' Relative Power and Availability Were Linked to the Division of Household Labor

Consistent with theory (Coverman, 1985; Huston & Burgess, 1979) and prior research (Coltrane, 2000; Lachance-Grzela & Bouchard, 2010), our results indicated that spouses' relative socioeconomic resources and work hours were linked to their housework allocation. The unique contribution of our study lies in the use of time-varying predictors that generate separate and unambiguous estimates of between- and within-couple effects: Wives with husbands who earned relatively more and worked relatively more hours, on average, did proportionally more housework, and at times when husbands earned more income and worked more hours relative to their wives than usual, wives were responsible for larger portions of household tasks than usual. By treating each couple as its own control (i.e., controlling for the cross-time averages), we were able to partial out the influences of stable family characteristics and selective effects (Curran & Bauer, 2011) and make stronger causal inferences about the links between spouses' financial power and temporal availability and the division of household labor.

Our study also contributed to the literature by showing that, controlling for spouses' relative socioeconomic resources and work hours, wives with husbands who perceived greater marital control, on average, did proportionally more housework and that, for couples with husbands who had highly autonomous jobs, at times when husbands were more psychologically involved in their jobs relative to their wives than usual, wives were responsible for larger portions of household tasks than usual. The links between spouses' interpersonal power and psychological availability and housework allocation have rarely been examined, but our results are consistent with the ideas that spouses can gain power through providing intangible goods and services (van de Rijt & Macy, 2006) and that individuals may be psychologically preoccupied with work-related issues during off-work

time (Sonnetag & Krue, 2006). Our finding that housework allocation varied as a joint function of spouses' personal characteristics and work conditions highlighted the importance of considering both person and context in understanding individuals' behaviors (Bronfenbrenner & Crouter, 1983). Specifically, it is the combination of the person and the environment (e.g., a highly involved worker in a highly autonomous work environment), rather than the person and the environment in isolation, that has an impact on family experiences. Future researchers should explore how factors other than earning ability, such as provision of affection and social support (van de Rijt & Macy, 2006), may engender power and how, under different work and family conditions, psychological forms of work-family conflict (Bellavia & Frone, 2005) may limit spouses' availability for household tasks.

Limitations and Directions for Research

Our study was not without limitations. First, although our sample reflected some population characteristics of two-parent family households from the region where the study was conducted (US Census Bureau, 2000) and our estimated level of household division of labor resembled that based on national diary data (Bianchi et al., 2000), our sample was not representative of the diversity of married couples in the US. How couples divide household tasks is constrained by cultural, social, and economic conditions (Coltrane, 2000), and thus our findings need to be replicated in more diverse samples. Second, our last wave of data collection took place in 2002/2003. Although cohort comparisons indicate that the decline in women's participation in housework, particularly their contributions relative to men, leveled off between the 1980s and the 2000s (Bianchi et al., 2000; Sayer, 2010), historical and longitudinal changes in spouses' division of household labor await further investigation using more recently collected data. Finally, our use of time-varying predictors allowed us to partial out the influences of stable, third variables and selection effects and examine relatively unconfounded associations (Curran & Bauer, 2011), and yet definitive conclusions about causal relations cannot be made based on correlational data. Intervention studies that use experimental designs to introduce changes in spouses' relative power and availability would be useful for disentangling the underlying causal paths. Despite these limitations, our use of multiple-wave diary data, time-varying predictors, and multifaceted measures of correlates provides new insights to the literature on the division of household labor by illustrating the importance of understanding housework allocation as a lifespan phenomenon, the distinction between within- versus between-couple associations, and the multidimensional nature of power and availability.

Acknowledgments

The authors are grateful to the undergraduate and graduate assistants, staff, and faculty collaborators for their help in conducting the study, as well as the participating families for their time and insights about family relationships. This work was funded by a grant from the National Institute of Child Health and Human Development (R01-HD32336) to Ann C. Crouter and Susan M. McHale, Co-Principal Investigators.

References

- Aiken, L.S.; West, S.G. Multiple regression: Testing and interpreting interactions. Thousand Oaks, CA: Sage; 1991.
- Artis JE, Pavalko EK. Explaining the decline in women's household labor: Individual change and cohort differences. *Journal of Marriage and Family*. 2003; 65:746–761.10.1111/j.1741-3737.2003.00746.x
- Bellavia, G.; Frone, M. Work-family conflict. In: Barling, J.; Kelloway, E.K.; Frone, M., editors. *Handbook of work stress*. Thousand Oaks, CA: Sage; 2005. p. 113-147.
- Bianchi SM, Milkie MA, Syaer LC, Robinson JP. Is anyone doing the housework? Trends in the gender division of household labor. *Social Forces*. 2000; 79:191–228.10.2307/2675569

- Bronfenbrenner, U.; Crouter, AC. The evolution of environmental models in developmental research. In: Kessen, W.; Mussen, PH., editors. *Handbook of child psychology: Vol. 1. History, theory, and methods*. 4. New York: Wiley; 1983. p. 357-414.
- Coltrane S. Research on household labor: Modeling and measuring the social embeddedness of routine family work. *Journal of Marriage and the Family*. 2000; 62:1208–1233.10.1111/j.1741-3737.2000.01208.x
- Coverman S. Explaining husbands' participation in domestic labor. *Sociological Quarterly*. 1985; 26:81–97.10.1111/j.1533-8525.1985.tb00217.x
- Craig L, Sawrikar P. Work and family: How does the (gender) balance change as children grow? *Gender, Work, and Organization*. 2009; 16:684–709.10.1111/j.1468-0432.2009.00481.x
- Crouter, AC.; Booth, A. *Children's influence on family dynamics: The neglected side of family relationships*. Mahwah, NJ: Erlbaum; 2003.
- Curran PJ, Bauer DJ. The disaggregation of within-person and between-person effects in longitudinal model of change. *Annual Review of Psychology*. 2011; 62:583–619.10.1146/annurev.psych.093008.100356
- Fan PL, Marini MM. Influences on gender-role attitudes during the transition to adulthood. *Social Science Research*. 2000; 29:258–283.10.1006/ssre.1999.0669
- Gjerdingen DK, Center BA. First-time parents' postpartum changes in employment, childcare, and housework responsibilities. *Social Science Research*. 2005; 34:103–116.10.1016/j.ssresearch.2003.11.005
- Gutmann, DL. *The human elder in nature, culture, and society*. Boulder, CO: Westview Press; 1997.
- Huston, TL.; Burgess, RL. Social exchange in developing relationships. In: Burgess, RL.; Huston, TL., editors. *Social exchange in developing relationships*. New York: Academic; 1979. p. 3-28.
- Katz-Wise SL, Priess HA, Hyde JS. Gender role attitudes and behavior across the transition to parenthood. *Developmental Psychology*. 2010; 46:18–28.10.1037/a0017820 [PubMed: 20053003]
- Kenny, DA.; Kashy, DA.; Cook, WL. *Dyadic data analysis*. New York: Guilford; 2006.
- Lachance-Grzela M, Bouchard G. Why do women do the lion's share of housework? A decade of research. *Sex Roles*. 2010; 63:767–780.10.1007/s11199-010-9797-z
- Lennon MC. Women, work, and well-being: The importance of work conditions. *Journal of Health and Social Behavior*. 1994; 35:235–247.10.2307/2137278 [PubMed: 7983336]
- Lodahl TM, Kejner M. The definition and measurement of job involvement. *Journal of Applied Psychology*. 1965; 49:24–33.10.1037/h0021692 [PubMed: 14279757]
- MacCallum RC, Zhang S, Preacher KJ, Rucker DD. On the practice of dichotomization of quantitative variables. *Psychological Methods*. 2002; 7:19–40.10.1037/1082-989X.7.1.19 [PubMed: 11928888]
- Mason CH, Perreault W Jr. Collinearity, power, and, interpretation of multiple regression analysis. *Journal of Marketing Research*. 1991; 28:268–280.10.2307/3172863
- Michell JS, Kotrba LM, Mitchelson JK, Clark MA, Baltes BB. Antecedents of work–family conflict: A meta-analytic review. *Journal of Organizational Behavior*. 2010; 32:689–725.10.1002/job.695
- Milkie M, Raley S, Bianchi S. Taking on the second shift: Time allocations and time pressures of U.S. parents of preschoolers. *Social Forces*. 2009; 88:487–518.10.1353/sof.0.0268
- Miller RB, Wright DW. Detecting and correcting attrition bias in longitudinal family research. *Journal of Marriage and the Family*. 1995; 57:921–929.10.2307/353412
- Raudenbush, SW.; Bryk, AS. *Hierarchical linear models*. Thousand Oaks, CA: Sage; 2002.
- Rexroat C, Shehan C. The family cycle and spouses' time in housework. *Journal of Marriage and the Family*. 1987; 49:737–750.10.2307/351968
- Robinson, JP.; John, P. *Time for life: The surprising ways Americans use their time*. University Park, PA: The Pennsylvania State University Press; 1997.
- Sayer, LC. Trends in housework. In: Grusky, DB.; England, P., editors. *Dividing the domestic: Men, women, and household work in cross-national perspective*. Stanford, CA: Stanford University Press; 2010. p. 19-38.
- Schafer, JL. *Analysis of incomplete multivariate data*. London: Chapman & Hall; 1997.

- Solomon CR, Acock AC, Walker AJ. Gender ideology and investment in housework. *Journal of Family Issues*. 2004; 25:1050–1071.10.1177/0192513X03261323
- Sonnentaga S, Krueger U. Psychological detachment from work during off-job time: The role of job stressors, job involvement, and recovery-related self-efficacy. *European Journal of Work and Organizational Psychology*. 2006; 15:197–217.10.1080/13594320500513939
- Stets JE. Control in dating relationships. *Journal of Marriage and the Family*. 1993; 55:673–685.10.2307/353348
- Szinovacz M. Changes in housework after retirement: A panel analysis. *Journal of Marriage and the Family*. 2000; 62:78–92.10.1111/j.1741-3737.2000.00078.x
- US Census Bureau. Census 2000 Gateway. 2000. Retrieved from <http://www.census.gov/main/www/cen2000.html>
- van de Rijt A, Macy MW. A division of labor is mediated by exchange of valued goods and services. *Social Forces*. 2006; 84:1455–1470.10.1353/sof.2006.0072
- Worthman CM. Hormones, sex, and gender. *Annual Review of Anthropology*. 1995; 24:593–616.10.1146/annurev.an.24.100195.003113

Figure 1.
Predicted (line) and observed (circles) changes in the division of household labor over the course of marriage.

Table 1

Parameter Coefficients (γ) and t-Ratios for Multilevel Models of the Division of Household Labor (N = 188 Couples)

	Model 1		Model 2		Model 3	
	γ	t-ratios	γ	t-ratios	γ	t-ratios
Time						
Intercept	.789	68.34**	.780	73.08**	.787	70.70**
Marital duration	-.008	-4.34**	-.004	-2.02*	-.005	-2.39**
Financial and Interpersonal Power						
BC spousal difference in income			.033	5.02**		
WC spousal difference in income			.028	3.58**		
Husbands' perceived marital control			.009	3.30**		
Wives' perceived marital control			-.003	-1.14		
Temporal and Psychological Availability						
BC spousal difference in work hours					.004	5.35**
WC spousal difference in work hours					.002	3.11**
BC spousal difference in job involvement					.001	0.69
WC spousal difference in job involvement					.002	1.86
Husbands' job autonomy					-.004	-1.15
Wives' job autonomy					-.004	-1.21
WC spousal difference in job involvement $\times$ Husbands' job autonomy					.001	2.29**
Controls						
TV spouses' average of income			-.026	-3.22**		
TV spouses' average of work hours					-.000	-0.56
TV spouses' average of job involvement					.003	1.82
TV number of children			.031	2.58**	.019	1.41
Husbands' physical health			-.010	-0.61	-.024	-1.28
Wives' physical health			.005	0.34	.003	0.18

Note: Spousal difference = husbands' minus wives' scores; BC = between-couple; WC = within-couple; TV = time-varying.

* $p < .05$.

*,
 $p < .025$

NIH-PA Author Manuscript

NIH-PA Author Manuscript

NIH-PA Author Manuscript