Skip the Dishes? Not So Fast! Sex and Housework Revisited

Matthew D. Johnson and Nancy L. Galambos
University of Alberta

Jared R. Anderson
Kansas State University

Using data from 1,338 couples who remained partnered over the first 5 waves of the German Panel Analysis of Intimate Relationships and Family Dynamics (pairfam) project, this study investigated longitudinal associations between male partner contributions to housework and couple sexual satisfaction and frequency. The effect of 2 housework variables was examined: male partners’ share of housework and perceived fairness of male partners’ housework contributions. Results from a series of autoregressive cross-lagged models revealed no direct or indirect longitudinal associations between male partner share of housework and sexual frequency or satisfaction. Rather, when male partners reported making a fair contribution to housework, the couple experienced more frequent sexual encounters, and each partner reported higher sexual satisfaction 1 year later. This study provides a robust counterpoint to recent findings suggesting that men’s participation in housework is harmful to a couple’s sex life.

**Keywords:** division of labor, household work, sexual frequency, sexual satisfaction, autoregressive cross-lagged models

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When men contribute to housework, does it harm the couple’s sex life? This is a compelling question, given the juxtaposition of attitudinal endorsement of egalitarianism as ideal for couple relations (e.g., Thornton & Young-DeMarco, 2001), with assertions that partners in such unions experience more difficulty navigating their sex life compared to those with traditional gender roles (Schwartz, 1995). Indeed, this question was openly debated in the media following the publication of a study that found less frequent sex in couples in which husbands complete a greater share of the housework traditionally done by women (e.g., dishes, laundry, cooking; Kornrich, Brines, & Leupp, 2013). Methodological shortcomings in this study, specifically, but also in the literature, more broadly, limit our ability to draw conclusions about how the division of housework and couple sexuality are associated. Namely, most research examining this topic is based on cross-sectional data, and no study has empirically examined the temporal ordering between male partners’ share of housework and sexuality. Motivated by a relational developmental systems approach, data from 1,338 couples who remained partnered over the first five waves of the German Panel Analysis of Intimate Relationships and Family Dynamics (pairfam) study are used to investigate longitudinal interrelations between male partners’ share of housework and perceived fairness of their housework contributions with the frequency of couple sexual encounters and male and female partner sexual satisfaction.

**Background**

Housework and Couple Sexual Functioning

There have been two main foci among the few studies that examined the link between housework and couple sexuality. A first line of investigation considered how the total amount of time spent on housework might limit the time available for sexual intimacy. Drawing on qualitative interviews with 31 long-term married couples, Elliott and Umberson (2008) found that couples attributed infrequent sex, in part, to time demanded by household tasks. As such, male partners reported completing household tasks in hopes that they would be sexually rewarded later (wives affirmed the effectiveness of this strategy). This time availability hypothesis was not supported, however, in a study using data from married couples in the National Survey of Families and Households (NSFH; Gager & Yabiku, 2010). Results showed that more time spent on housework by husbands and wives was associated with higher sexual frequency. Gager and Yabiku posit that couples who excel in one domain (household and paid labor) are likely to excel in other domains (sexual frequency), aptly summarized as a *work hard, play hard* dynamic.

In contrast to the absolute number of housework hours, the second focus of this literature examined how the relative share of housework between partners impacts sexual functioning. Drawing from married couples in the NSFH, Kornrich et al. (2013) examined how husbands’ share of core housework, or those tasks...
typically attributed to women (e.g., preparing meals, cleaning house), and noncore tasks, those tasks typically attributed to men (e.g., outdoor work, auto maintenance), was related to sexual frequency. Results showed that husbands who completed a higher proportion of core housework had less frequent sex, while completing a greater share of noncore tasks was linked with having sex more often. According to Kornrich and colleagues, “traditionally masculine and feminine behaviors consciously or unconsciously serve as turn-ons for individuals” (2013, p. 31), implying that husbands emasculate themselves by completing housework traditionally considered to be women’s responsibility and therefore experience reduced sexual frequency because they rendered themselves less sexually appealing . . . by doing the dishes.

A second study challenged the results of Kornrich et al. (2013) by arguing that their findings were driven by the use of data gathered in the early 1990s and that they failed to consider whether associations between housework and sexuality are not linear (Carlson, Miller, Sassler, & Hanson, 2014). Using data gathered in 2006, Carlson and colleagues recoded the share of housework completed by each partner into three categories (female partner does the majority, roughly equal shares, and male partner does the majority) to test curvilinear links between housework and sexual frequency. Results showed that having a roughly equal split in core housework was not associated with a decline in sexual frequency or satisfaction (compared to couples in which the female partner completed most of the housework). Only couples in which the male partner completed the majority of the housework (termed counterconventional) experienced less sexual satisfaction and frequency. The authors argue that their findings suggest a shift in how household labor relates to sexual functioning, with male partner contributions proving harmful to sexual satisfaction and frequency only when men defy societal norms and complete most of the core housework.

Finally, we found only one study that examined associations between male partner share of housework and couple sexuality longitudinally. Using panel regression models and four waves of pairfam data, Hajek (2015) found no association among male partner share of housework (core or noncore) and sexual frequency or satisfaction, casting doubt on the housework–sex link.

What conclusions can be drawn from this literature? That the time demanded by housework may reduce sexual frequency (Elliott & Umberson, 2008) or not (Gager & Yabiku, 2010)? That male partners’ engagement in female-typed housework reduces sexual satisfaction and frequency (Kornrich et al., 2013), but only when men do most of this housework (Carlson et al., 2014), or not (Hajek, 2015)? Although differences in measurement, analytic approach, and sample composition may explain these disparate findings, we reiterate that the assumption of a causal impact of housework on sexual functioning without empirically disentangling their temporal ordering is a key limitation in this literature. After all, not only should longitudinal data be used to discover whether housework precedes sex, but it is also possible that satisfying and frequent sexual relations could be just as much an outcome of male participation in housework as a motivator for the man to contribute to household labor. Furthermore, we suspect that there is another housework variable linked to couple sexuality: Is the male partner’s contribution fair?

Perceived Fairness of Housework Contributions and Couple Sexual Functioning

Although the literature primarily focused on understanding the impact of men’s housework contributions on couple sexuality, we also consider influences from male partners’ perceptions of whether their contributions are fair. The objective split in housework between partners does not account for the meaning partners may attribute to these behaviors. Partners’ cognitive appraisals are important, influencing relationship behaviors years into the future (e.g., Johnson & Anderson, 2013; but also see Johnson & Anderson, 2015). People desire to be treated fairly and equitably in their relationships and react to experiences of injustice with feelings of anger and resentment (e.g., Crosby, 1976). But the determination of fairness is a subjective process based on comparisons to societal norms (e.g., Van den Bos, Wilke, Lind, & Vermunt, 1998), personal expectations and preferences (e.g., Thibaut & Kelley, 1959), and relevant contextual factors. Applied to housework, equal contributions are not necessarily considered fair, which might explain why most women perceive a fair division of labor when they also perform the majority of the housework (Coltrane, 2000).

We expect perceptions of whether male partners are contributing fairly to housework (or not) to shape couple sexuality as it unfolds over time. When male partners are not doing their fair share, these household tasks are either not getting done or female partners are forced to pick up the slack. Either situation likely creates tension between partners and reduces the likelihood of a sexual encounter. Given the ubiquity of housework in daily life, male partners making a fair housework contribution may be a powerful way to prevent feelings of resentment and bitterness between intimates (especially when female partners already complete the lion’s share of the household tasks; Coltrane, 2000), setting the stage for a more frequent and satisfying sex life.

Hajek (2015) tested whether a composite couple-level variable assessing each partner’s perceptions of his or her own housework contributions was associated with sexual frequency and satisfaction and found that couple fairness perceptions predicted higher sexual satisfaction in a random effects analysis (between persons), but not in the fixed effects model (within person). There was no association of perceived fairness with frequency of intercourse in either analysis. On the whole, these results did not support a link between perceived fairness of household labor and couple sexuality. We delve further into this issue (a) by focusing on perceived fairness in male partner contributions to housework and (b) by investigating the temporal ordering of perceived fairness and sexual relations. Carlson and colleagues (2014) also examined perceived fairness as a mediator between male partner housework and sexual satisfaction and frequency and found that when men completed the majority of housework, they rated the division of housework as unfair, which was associated with less frequent and satisfying sex. While we theorize perceptions of fairness to be important in their own right, we also examine whether fairness serves as a conduit linking male partner share of housework with couple sexual functioning.

Relational Developmental Systems Perspective

We draw on the relational developmental systems perspective (Lerner, Agans, DeSouza, & Gasca, 2013) to motivate our longi-
The relational developmental systems perspective is rooted in a life-span approach, which assumes that individual behavior and change across time are functions of (a) personal attributes and tendencies, (b) reactions to events and circumstances in multiple contexts comprising the human ecology, and (c) ongoing reciprocal interactions between the person and these contexts (Baltes, 1987). Not only does an individual’s behavior change over time as a result of such dynamic interactions, but these interactions also affect the behaviors of others in the social context. Mutually influential individual-context relations are a cornerstone of the relational developmental systems perspective (Lerner, 1996; Lerner et al., 2013), which leads researchers to consider how the behaviors of the parties within a system influence each other and whether their interactions are adaptive or beneficial rather than maladaptive and harmful. Indeed, couple sexuality is inherently a dyadic pursuit, but each partner’s behavior (such as contributing to housework or not) shapes the course of sexual functioning.

With its focus on mutually influential interactions over time, the relational developmental systems perspective highlights the need for longitudinal research that follows and documents the process by which interacting individuals exert their influence on each other and the system in which they are a part. Such investigations allow for conclusions about behaviors that lead to optimization of individuals within that system as well as behaviors that may be deleterious over time (Lerner et al., 2013). The developmental systems perspective provides a useful framework for considering the association between division of labor in a household and couple sexuality by focusing on the need for multiwave research that investigates the bidirectional, temporally ordered relations between housework and couple sexuality at the same time that the partnership is evolving—a focus that is absent from this literature. As such, we employ an autoregressive cross-lagged modeling approach to answer our research question. This allows comparisons among a series of models to identify the most appropriate temporal ordering of the variables. We begin with a baseline model in which only the autoregressive paths (e.g., Wave 1 housework predicts Wave 2 housework) and within-wave covariances between the housework and sexuality variables are estimated. Next, unidirectional models are computed that add predictive paths from each variable. One model will be specified so that housework predicts sexuality and the other will model sexuality as predicting housework. Finally, a bidirectional model will be computed in which both variables reciprocally predict each other over time.

The relational developmental systems perspective also calls for multifactor assessments of behavior rather than relying on one person’s account, as it is important to accurately represent the couple as a system as well as individuals who can change within that system. In this regard, we use common fate modeling to capture only the shared variance between male and female partner reports of the male partner’s share of household labor (i.e., capturing only housework the male and female partner both report as being the male partner’s responsibility). Given evidence that male and female partner reports of housework vary substantially (Lee & Waite, 2005), this approach ensures that results are not biased by tendencies from either partner to over- or underreport the male partner’s contribution and statistically accounts for this bias in each partner’s report.

The Present Study

The purpose of the current work is to examine longitudinal associations between male partner share of (core) housework and perceived fairness of male partner housework contributions with three indicators of sexual functioning: the frequency of sexual encounters and male and female partner sexual satisfaction. This question is examined with data collected through the German pairfam study. Germany represents a particularly interesting context in which to examine links between housework and couple sexuality. Following World War II, West Germany encouraged traditional male breadwinner families through the introduction of policies to benefit single-earner families (e.g., income splitting and child allowances; for a detailed review, see Cooke, 2007). After the reunification of East and West Germany in 1990, the West German policies were applied to the nation, although regional differences persist, with a more egalitarian division of labor still evident among couples in former East Germany (e.g., Greenstein, 2009). This context provides a compelling test of ideas raised in prior work, as the enactment of sexual scripts (Kornrich et al., 2013) or consequences of counterconventional housework arrangements (Carlson et al., 2014) might be more pronounced in a country where traditional gender roles are codified in national policy. Indeed, while male partner housework contributions in the United States from 1994 to 2002, male partner contributions in Germany declined over this time (Geist & Cohen, 2011).

This study also represents a rigorous examination of this topic. In addition to providing a rare investigation of housework and couple sexuality with multiwave longitudinal data (spanning 5 years), the autoregressive cross-lagged approach empirically disentangles the interrelations among housework and sexuality while accounting for the most relevant potential confounds: within-wave covariances between the variables and prior levels of each variable. We also incorporate key control variables associated with sexual functioning or housework: relationship satisfaction, relationship length, number of children in the home, age, self-rated health, marital status, and residence in former East Germany. A study of German couples revealed that inequity in partner contributions to housework was associated with lower relationship satisfaction for both partners (Klumb, Hoppmann, & Staats, 2006) and that relationship satisfaction is intertwined with both sexual satisfaction and frequency (McNulty, Wenner, & Staats, 2006). Sexual frequency and satisfaction decline with relationship duration (McNulty et al., 2014) and age (Call, Sprecher, & Schwartz, 1995), while the division of housework becomes more balanced over time (Lam, McHale, & Crouther, 2012). The effect of children in the home on sexual frequency depends on their age; having young children (0–4 years old) is related to less sex, while having school-aged children (5–18 years old) is associated with more frequent sex (Call et al., 1995; Gager & Yabiku, 2010; Kornrich et al., 2013). Poorer physical health is associated with less frequent sex (Call et al., 1995), and cohabiting couples report more frequent sex than married couples (Yabiku & Gager, 2009). Finally, couples residing in former East Germany report a more equal division of labor than those in West Germany (Greenstein, 2009).
Method

Procedures

The first five waves of data from the Panel Analysis of Intimate Relationships and Family Dynamics (pairfam) study (release 5.0; Nauck, Brüderl, Huinink, & Walper, 2014) are used in this study. Commencing in 2008, pairfam is composed of a representative sample of 12,402 focal participants or anchors recruited from three birth cohorts in Germany. Approximately one third of anchor participants were from each cohort at baseline: 1991 to 1993 (adolescents aged 15 to 17 years), 1981 to 1983 (young adults aged 25 to 27 years), and 1971 to 1973 (adults aged 35 to 37 years nearing midlife). Anchor participants who reported being in a relationship (n = 7,234) were asked permission for their intimate partners to be included in the study (5,189 anchors consented), and 3,743 intimate partners returned surveys at Wave 1. Data are collected annually from all participants and will culminate in 14 waves of data in 2022 (only the first five were available for analysis). Pairfam surveys focus on four thematic areas: intimate partnerships, childcare, parenting, and child development and intergenerational relationships. Anchor interviews average 60 to 70 min and are conducted with a computer-assisted personal interview (CAPI) and a computer-assisted self-administered interview (CASI) for sensitive questions, such as sexual frequency and satisfaction. Partners completed paper questionnaires, which were collected by the interviewer or mailed in a return envelope. A detailed description about pairfam is available in the study’s concept paper (Huinink et al., 2011), which can be accessed at http://www.pairfam.de/en/study.html.

Sample

The sample for this study was composed of 1,338 intimate partner pairs, drawn from the larger sample of 3,743 couples recruited at Wave 1. Because this study focuses on how the division of labor shapes the development of couple sexual satisfaction and frequency, we first filtered the sample to include only couples who remained partnered over the first five waves of the study (n = 1,476). For the couples not selected at this stage of the filtering process, 453 anchors reported dissolving their union. The emphasis on the household division of labor led us to filter the 35 adolescent couples still in the subsample, and the presence of only 14 continuously partnered same-sex couples did not allow us to utilize their data. Finally, 89 couples who indicated that “another person” other than the couple does the housework or it “doesn’t apply to our situation” (e.g., living apart together) were filtered, producing the final sample of 1,338 couples.

In the final sample, couples had been together an average of 9.75 years (SD = 5.64), with the majority married (69.2%). Nearly 70% of the couples had children and, of those, 32.9% were under the age of 2, over half (52.5%) had at least one 2- to 5-year-old, and 50.9% had children between the ages of 6 and 13. In terms of couple age, 34.5% were from the young adult cohort (male partners were 28.53 years [SD = 4.19] and female partners were 25.85 years [SD = 2.01] at Wave 1), and 65.5% were in midlife (male partners were 37.99 years [SD = 3.97] and female partners were 34.98 years [SD = 3.26]). A 4-year university degree was obtained by 31.5% of male partners and 35.1% of female partners, and anchors reported their average net household income as €2,834.29 per month (SD = €1,274.55).

Measures

**Male partner share of housework.** Two items from the Relative Share of Labor Scale (derived from Baxter, 2002) measured the male partner’s contribution to core household tasks in Waves 1 through 5. Participants answered “To what extent do you and your partner share duties in the following domains?” Items are “housework (washing, cooking, cleaning)” and “shopping.” Responses are 1 = (almost) completely the female partner, 2 = for the most part, the female partner, 3 = split about 50/50, 4 = for the most part, the male partner, and 5 = (almost) completely the male partner. Mean scores for each partner were computed, with higher scores reflecting a greater proportion of housework performed by male partners. Correlations between male and female partner reports ranged from r = .65 to r = .71 over time.

**Fairness of housework contributions.** One item at Waves 1, 3, and 5 assessed male partners’ perceptions of fairness regarding their contributions to household labor (adapted from Baxter, 2002). The item asked, “Looking at both household work and paid work, how fair is the division of labor between you and your partner?” Responses were 1 = I do much more than my fair share, 2 = I do a bit more than my fair share, 3 = I do about my fair share, 4 = I do a bit less than my fair share, and 5 = I do much less than my fair share. Frequency analyses revealed that few respondents endorsed the extreme response categories, so the measure was initially collapsed to three categories corresponding to doing more than one’s fair share, about one’s fair share, or less than one’s fair share. With this coding scheme, there were still very few male partners who reported doing more than their fair share, providing inadequate power to detect associations for this group. Additionally, when examining means of sexual satisfaction and frequency, those men who reported doing more or less than their fair share had nearly identical means (both were lower than those reporting a fair contribution). Thus, we dichotomized this variable for analysis: 0 = I do not do my fair share and 1 = I do about my fair share.

**Sexual frequency.** One member of the couple, the focal participant, answered an item in Waves 2, 3, 4, and 5 concerning the frequency of sexual intercourse with his or her partner. The item asked, “How often have you had sexual intercourse on average during the past three months with your partner?” Responses were 1 = not in the past 3 months, 2 = once per month or less, 3 = 2–3 times per month, 4 = once per week, 5 = 2–3 times per week, 6 = more than 3 times per week, and 7 = daily. We followed the recommendation of Little (2013) and treated this ordinal variable as a metric variable because the response patterns are more reflective of an underlying continuum than discrete categories (results did not differ when analyzed as a categorical variable).

**Sexual satisfaction.** Male and female partners answered one item assessing their sexual satisfaction in each wave of data collection. Following the sexual frequency question, participants were asked, “How satisfied are you with your sex life?” Responses range from 0 = very dissatisfied to 10 = very satisfied.

**Control variables.** Wave 1 assessment of relationship length, age, the number of children in the household, relationship satisfaction, self-rated health, and whether the couple lived in the former East Germany were included as control variables. Anchor participants reported the relationship length (M = 9.75 years, SD = 5.64) and total number of children currently living in the
household, which was coded into three variables in accordance with prior work in this area (Kornrich et al., 2013): number of children less than 2 years old (21.9% of couples had one child and .8% had two or more this age), number of children 2 to 5 years (29.5% of couples had one child and 6.8% had two or more), and number of children 6 to 13 years old (20.9% of couples had one child and 14.2% had two or more). One item from the Relationship Assessment Scale (Hendrick, Dickle, & Hendrick, 1998) measured relationship satisfaction at Wave 1: “All in all, how satisfied are you with your relationship?” Responses range from 0 = very dissatisfied to 10 = very satisfied. Self-rated health was assessed from each partner with one item: “How would you describe your health status in the past 4 weeks?” Responses were 1 = bad, 2 = not so good, 3 = satisfactory, 4 = good, and 5 = very good (M = 3.75, SD = .95 for male partners and M = 3.61, SD = .98 for female partners), and both partners reported their age.

Missing Data

Full information maximum likelihood (FIML) estimation was used to handle missing data, which provides less biased parameter estimates than listwise or pairwise deletion and mean substitution and comparable estimates to multiple imputation (e.g., Johnson & Young, 2011). Missing values among key variables of interest in this study ranged from 4.3% for male partners’ reports of their share of housework at Wave 1 to 19.4% for male partner sexual satisfaction at Wave 4. To justify the missing-at-random assumption of FIML, we conducted a series of 95 t tests to determine whether missingness for each study variable was related to Wave 1 scores on our focal variables. Adjusting for familywise error, only one significant difference emerged: Male partners who did not report their sexual satisfaction at Wave 2 contributed significantly less to housework at Wave 1 (M = 2.22, SD = .74) compared to men who reported, M = 2.43, SD = .68, t(255.44) = −3.65, p < .001. These results provide evidence that the pattern of missingness was independent of the variables of interest 98.9% of the time. Next, we computed a series of logistic regressions to identify variables that predicted the pattern of missingness and might aid in the estimation of missing values. Having more children, being younger and having been a couple for less time, reporting poorer health, and being less satisfied with their relationship predicted increased odds of nonresponse on one or more key variables in future waves. Collectively, these analyses support the missing-at-random assumption, suggesting that the use of FIML is appropriate.

Analytic Plan

Analyses were conducted with Mplus 7.11 (Muthén & Muthén, 1998–2012). Common fate modeling procedures (e.g., Ledermann & Kenny, 2012) were used to represent male partner share of housework as a latent variable with male and female partner reports serving as indicators. This latent variable was assessed in all five waves, so we first established measurement invariance over time. We then computed correlations between the latent male partner share of housework variable and male partner reported fairness of housework contributions with sexual satisfaction for both partners and sexual frequency. Next, we proceeded to compute a series of nested autoregressive cross-lagged models for each pair of variables to determine the most appropriate way to model their interrelations over time. As described, a baseline model was computed that included only the autoregressive paths and the within-wave covariances between the variables. Two models tested longitudinal unidirectional cross-lagged associations (e.g., housework predicting sexual frequency and sexual frequency predicting housework), and a final model included bidirectional cross-lagged linkages. The chi-square difference test (χ²diff) was used to compare nested models. After selecting the best-fitting bivariate models, control variables were added and final models computed. Overall model fit was evaluated with the chi-square test (χ²), the root mean square error of approximation (RMSEA), and the comparative fit index (CFI). A nonsignificant chi-square test, values less than .05 for the RMSEA, and values greater than .95 for the CFI indicate good fit. Values less than .08 for the RMSEA and greater than .90 for the CFI suggest acceptable fit (Little, 2013).

Results

Test of Measurement Invariance

Prior to analyzing our latent male partner share of housework variables, we first established measurement invariance across the five waves of data to ensure that results are not influenced by differences in measurement over time. We followed procedures for testing measurement invariance (e.g., Little, 2013) within a longitudinal common fate modeling framework (Ledermann & Macho, 2014). Weak factorial invariance is the baseline model because factor loadings for male and female partner reports are fixed at 1 to identify the common fate model. The weak factorial invariance model proved to be a good fit to the data: χ²(10) = 10.341; RMSEA = .005; (confidence interval [CI] [.000, .030]); CFI = 1.000. Next, equality constraints were applied to corresponding intercepts over time to test for metric invariance. Chi-square difference tests are too sensitive when examining measurement invariance (Little, 2013), so change in the CFI (≤.01) was used to determine whether the equality constraints significantly worsened model fit. The metric invariance model also had good fit (ΔCFI = .003), χ²(14) = 42.954; RMSEA = .039 (CI [.026, .053]); CFI = .997, and is used in all subsequent analyses.

Correlations

To examine the bivariate associations among the study variables, we computed correlations with the (latent) male partners’ share of housework variable and male partners’ perceived fairness in their housework contributions with the frequency of couple sexual encounters and each partner’s sexual satisfaction (see Table 1). Male partners’ share of housework was generally not associated with the sexual outcome variables, with a few exceptions. Consistently, male partner housework contributions over time were associated with more satisfying sex for male partners at Wave 1 and female partners at Wave 4. Importantly, there were only two negative associations: Higher female sexual satisfaction at Wave 3 was associated with male partners contributing less to housework at Waves 4 and 5. Correlations between male partners’ perceived fairness of their housework contributions demonstrated a more consistent link with better sexual functioning than male partners’ share of housework.
Perceived fairness at Wave 1 was associated with better sexual functioning for all but one variable (male sexual satisfaction at Wave 5), and Wave 3 fairness was associated with more frequent sex and higher satisfaction for female partners at Waves 4 and 5. Male partner fairness at Wave 5 was not associated with sexual frequency, but higher sexual satisfaction for male (at Waves 2 and 5), and Wave 3 fairness was associated with more frequent sex. Male partner fairness at Wave 5 was not associated with sexual frequency via perceptions of fairness. Next, we added control variables. As shown in Table 2, the baseline model fit best, providing no evidence for longitudinal indirect associations between housework and sexual satisfaction or frequency via perceptions of fairness. Next, we added control variables to run final models examining associations between housework and female partner sexual satisfaction and associations of male partner fairness with sexual outcomes.

### Final Autoregressive Cross-Lagged Models

Initially, models were rerun, regressing all endogenous variables on the control variables. The models including male partner perceived fairness failed to converge when fairness was regressed on the control variables, so we opted to regress only the sexual functioning variables on the control variables. When the control variables were added to the male partner share of housework and female partner sexual satisfaction model, the cross-lagged paths of interest became nonsignificant, so these results are not presented. The autoregressive cross-lagged models with male partners’ perceived fairness of their housework contributions predicting sexual frequency and sexual satisfaction were a good fit to the data with the control variables included (see Figure 1). These results indicated that male partners making a fair contribution to housework predicted more frequent and satisfying sex for both partners in the future (although male partner fairness at Wave 3 was not associated with male partner sexual satisfaction at Wave 4), controlling for prior reports of fairness and sexual frequency and satisfaction, within-wave covariances between the variables, and the control variables.

### Discussion

The purpose of this study was to explore the longitudinal associations between male partner housework contributions and sexual functioning over 5 years in a large, national sample of German couples. The results tell a clear story: When men contribute fairly to housework, the couple enjoys more frequent and satisfying sex in the future. This finding was robust, persisting after accounting for considerable stability across time in perceived fairness and exceptionally high stability in sexual frequency and satisfaction, cross-sectional covariances among the variables, and a host of potential confounding variables. In contrast, male partner share of housework, as reported by both male and female partners, was not associated with future sexual satisfaction or frequency directly or indirectly via perceptions of fairness (e.g., Carlson et al., 2014). Our findings raise a compelling question: When it comes to couple sexuality, why do perceptions of fairness concerning male partner housework contributions prove impactful, while a more objective indicator of male partner housework does not?

We propose that perceptions of fairness are a more powerful predictor of sexual functioning than male partner share of housework because the determination of fairness is an active cognitive
Table 2
Model Fit Indices for the Longitudinal Associations of Male Partner Share of Housework and Perceived Fairness of Housework Contributions With Sexual Frequency and Satisfaction (n = 1,338 Couples)

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$ (df)</th>
<th>RMSEA</th>
<th>90% CI</th>
<th>CFI</th>
<th>Model comparison: $\chi^2_{diff}$ (df$_{diff}$)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Housework and sex freq</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>351.726 (58)</td>
<td>.062</td>
<td>[.055, .068]</td>
<td>.973</td>
<td></td>
</tr>
<tr>
<td>Housework to sex</td>
<td>351.599 (55)</td>
<td>.063</td>
<td>[.057, .070]</td>
<td>.973</td>
<td>$\chi^2_{diff}$ (3) = .127, $p = .99$</td>
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<tr>
<td>Sex to housework</td>
<td>351.542 (55)</td>
<td>.063</td>
<td>[.057, .070]</td>
<td>.973</td>
<td>$\chi^2_{diff}$ (3) = .184, $p = .98$</td>
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<tr>
<td>Bidirectional</td>
<td>351.397 (52)</td>
<td>.066</td>
<td>[.059, .072]</td>
<td>.973</td>
<td>$\chi^2_{diff}$ (6) = .329, $p = .99$</td>
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<td><strong>Housework and M sex sat</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Baseline</td>
<td>468.559 (71)</td>
<td>.065</td>
<td>[.059, .070]</td>
<td>.963</td>
<td></td>
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<tr>
<td>Housework to sat</td>
<td>466.653 (67)</td>
<td>.067</td>
<td>[.061, .073]</td>
<td>.962</td>
<td>$\chi^2_{diff}$ (4) = 1.906, $p = .75$</td>
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<tr>
<td>Sat to housework</td>
<td>463.226 (67)</td>
<td>.066</td>
<td>[.061, .072]</td>
<td>.962</td>
<td>$\chi^2_{diff}$ (4) = 5.333, $p = .25$</td>
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<tr>
<td>Bidirectional</td>
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<td>.069</td>
<td>[.063, .075]</td>
<td>.963</td>
<td>$\chi^2_{diff}$ (8) = 7.181, $p = .52$</td>
</tr>
<tr>
<td><strong>Housework and F sex sat</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>488.097 (71)</td>
<td>.064</td>
<td>[.053, .072]</td>
<td>.960</td>
<td></td>
</tr>
<tr>
<td>Housework to sat</td>
<td>475.555 (67)</td>
<td>.068</td>
<td>[.062, .073]</td>
<td>.961</td>
<td>$\chi^2_{diff}$ (4) = 12.542, $p = .01$</td>
</tr>
<tr>
<td>Sat to housework</td>
<td>469.206 (67)</td>
<td>.067</td>
<td>[.061, .073]</td>
<td>.962</td>
<td>$\chi^2_{diff}$ (4) = 18.891, $p &lt; .001$</td>
</tr>
<tr>
<td>Bidirectional</td>
<td>456.601 (63)</td>
<td>.068</td>
<td>[.063, .074]</td>
<td>.963</td>
<td>$\chi^2_{diff}$ (8) = 31.496, $p &lt; .001$</td>
</tr>
<tr>
<td><strong>Housework and M fair</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>84.925 (48)</td>
<td>.024</td>
<td>[.016, .032]</td>
<td>.993</td>
<td></td>
</tr>
<tr>
<td>Housework to fair</td>
<td>88.779 (46)</td>
<td>.026</td>
<td>[.018, .035]</td>
<td>.991</td>
<td>N/A: fit worsened</td>
</tr>
<tr>
<td>Fair to housework</td>
<td>83.552 (46)</td>
<td>.025</td>
<td>[.016, .033]</td>
<td>.993</td>
<td>$\chi^2_{diff}$ (2) = 1.373, $p = .50$</td>
</tr>
<tr>
<td>Bidirectional</td>
<td>90.442 (44)</td>
<td>.028</td>
<td>[.020, .036]</td>
<td>.991</td>
<td>N/A: fit worsened</td>
</tr>
<tr>
<td><strong>M fair and sex freq</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>68.636 (13)</td>
<td>.057</td>
<td>[.044, .070]</td>
<td>.956</td>
<td></td>
</tr>
<tr>
<td>Fair to sex</td>
<td>51.381 (12)</td>
<td>.052</td>
<td>[.038, .067]</td>
<td>.966</td>
<td>$\chi^2_{diff}(1) = 17.255, p &lt; .001$</td>
</tr>
<tr>
<td>Sex to fair</td>
<td>109.834 (11)</td>
<td>.082</td>
<td>[.038, .096]</td>
<td>.922</td>
<td>N/A: fit worsened</td>
</tr>
<tr>
<td>Bidirectional</td>
<td>88.136 (10)</td>
<td>.080</td>
<td>[.065, .095]</td>
<td>.933</td>
<td>N/A: fit worsened</td>
</tr>
<tr>
<td><strong>M fair and M sex sat</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>122.910 (19)</td>
<td>.064</td>
<td>[.053, .075]</td>
<td>.915</td>
<td></td>
</tr>
<tr>
<td>Fair to sat</td>
<td>112.831 (17)</td>
<td>.065</td>
<td>[.054, .077]</td>
<td>.922</td>
<td>$\chi^2_{diff}$ (2) = 10.079, $p = .01$</td>
</tr>
<tr>
<td>Sat to fair</td>
<td>179.156 (17)</td>
<td>.084</td>
<td>[.074, .096]</td>
<td>.868</td>
<td>N/A: fit worsened</td>
</tr>
<tr>
<td>Bidirectional</td>
<td>190.397 (15)</td>
<td>.094</td>
<td>[.082, .106]</td>
<td>.857</td>
<td>N/A: fit worsened</td>
</tr>
<tr>
<td><strong>M fair and F sex sat</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>163.630 (19)</td>
<td>.075</td>
<td>[.065, .086]</td>
<td>.888</td>
<td></td>
</tr>
<tr>
<td>Fair to sat</td>
<td>147.281 (17)</td>
<td>.076</td>
<td>[.065, .087]</td>
<td>.899</td>
<td>$\chi^2_{diff}$ (2) = 16.349, $p &lt; .001$</td>
</tr>
<tr>
<td>Sat to fair</td>
<td>213.555 (17)</td>
<td>.093</td>
<td>[.082, .104]</td>
<td>.848</td>
<td>N/A: fit worsened</td>
</tr>
<tr>
<td>Bidirectional</td>
<td>211.196 (15)</td>
<td>.099</td>
<td>[.087, .111]</td>
<td>.886</td>
<td>N/A: fit worsened</td>
</tr>
</tbody>
</table>

Note. df = degrees of freedom; RMSEA = root mean square error of approximation; CI = confidence interval; CFI = comparative fit index; N/A = not applicable; M = male partner; F = female partner; freq = frequency; sat = satisfaction; fair = perceived fairness. Boldface models have the best fit. Baseline models only include autoregressive paths and within-wave covariances.

process necessitating the consideration of housework contributions in relation to the broader context (e.g., societal norms, personal preferences and expectations, and the intricacies of one’s intimate partnership). Focusing on the male partner’s relative share of housework ignores these important factors (although prior work included contextual control variables), implying that an imbalance in housework contributions is inherently important for sexual functioning. We find little support for this notion. Rather, it is the determination of whether a male partner is contributing his fair share in light of the factors most relevant to his situation that is diagnostic of future sexual functioning. A division of household labor perceived to be fair ensures that partners feel respected while carrying out the tasks of daily life. Completing housework may or may not be enjoyable, but knowing that a partner is pulling his weight prevents anger and bitterness, creating more fertile ground in which a (satisfying) sexual encounter may occur.

But do our results reflect unique associations from perceived fairness of male partner housework contributions to couple sexuality, or are we tapping into a more general “fairness effect” on sexuality that is also present when considering perceived fairness of female partner housework contributions? Pairfam also assessed female partners’ perceived fairness of their own housework contributions, and we computed the same analyses for this variable as were reported for male partners’ perceived fairness. For female partner fairness, the baseline model fit best for male and female partner sexual satisfaction (signifying no longitudinal association between the constructs), but the best-fitting model for sexual frequency was the unidirectional fairness to sex model (results are available as online supplemental material). Although this was the best-fitting model, the cross-lagged paths from female partner fairness to sexual frequency were not significant (both $\beta_s = .03$), providing evidence that the findings linking male partner perceptions of fairness to dyadic sexuality are not tapping into a more generalized effect of fairness. These gendered associations would be anticipated from the perspective of sexual economics theory (Baumeister & Vohs, 2004), which posits that sex is a female-
controlled commodity that males exchange resources to access. Insofar as female partners desire a fair contribution to housework from their male partners, sexual economics theory implies that couples would enjoy more frequent sex when male partners exchange a fair contribution to household tasks for sexual encounters.

So what might explain the difference between the widely publicized and surprisingly strong association (as high as \(r = .43\)) between men’s housework contributions and reduced sexual frequency reported by Kornrich and colleagues (2013) and the lack of evidence linking male partner share of housework with sexual functioning in this study? Our longitudinal research design and rigorous analytic approach likely hold part of the answer, but even the bivariate correlations between male partner share of housework and the sexual functioning variables were small in magnitude (see Table 1). We offer a few potential explanations for these disparate results. The current study drew from a sample of German couples, whereas NSFH data (used by Kornrich et al.) were gathered in the United States. Cross-national comparisons examining the impact of the division of labor on family functioning revealed country-level differences (Greenstein, 2009), but prior arguments (violation of societal norms, Carlson et al., 2014, or the enactment of sexual scripts, Kornrich et al., 2013) led us to surmise that the purported negative effect of men’s contribution to housework on couple sexuality would be more pronounced in a country that reinforces traditional gender roles in social policy (Cooke, 2007) and where men’s contributions to housework recently declined (Geist & Cohen, 2011). That was not the case.

Another answer might lie in the nature of our sample. We were interested in untangling the longitudinal interrelations among the
constructs, so we filtered the sample to include only continuously partnered couples. It is possible that male partner contributions to housework may be detrimental to couple sexuality only among couples who end their union. A cross-sectional analysis necessarily includes couples who persisted and parted ways in the future. We computed correlations among our variables with the entire subsample of intimate partner pairs in pairfam to test this possibility, but the pattern of results was consistent with those in Table 1.

Measurement differences might also explain the divergent pattern of results. Pairfam assessed core housework by asking respondents how housework (washing, cooking, cleaning) and shopping are shared between partners, ranging from (almost) completely the female partner’s responsibility to (almost) completely the male partner’s. The NSFH prompted respondents to record the number of hours spent completing a variety of household tasks over the previous week (e.g., preparing meals, washing dishes, shopping). Although measurement likely accounts for some discrepancy in the findings, a cross-national comparison that included task-based (as in pairfam) and time-based (as in the NSFH) measurement of housework revealed that each approach yields very similar estimates of the relative share of housework between partners (Knudsen & Waerness, 2008); the time-based measure of housework estimated that German women completed 76% of core housework compared to 79% for the task-based measure. Additionally, Carlson and colleagues (2014) measured housework with a scale similar to the one used in the pairfam study and still found that men who completed the majority of housework experienced less frequent and satisfying sex, a finding broadly consistent with that of Kornrich et al. (2013). Certainly, continued longitudinal investigation examining associations between housework and sexuality with both time- and task-based assessment of housework is needed.

We offer one additional possibility for the discrepant results. Kornrich et al. (2013) may have found that male partners’ share of housework was linked with less frequent sex because they controlled for the amount of time the couple spent alone together in their regression models. In most situations, spending time alone together is a prerequisite for a sexual encounter to unfold, and a variable assessing the frequency of time alone together likely functions as a proxy for sexual frequency. Indeed, time alone together was strongly linked with sexual frequency (as high as $\beta = .74$; Kornrich et al.). Inclusion of this variable may have biased the regression estimates, and associations between male partner share of housework and couple sexuality might differ if it were omitted. Conceptually, how are the results to be interpreted if the covariation between sexual frequency and spending time alone together has been controlled? Presumably, the remaining variance in sexual frequency being predicted by male partner share of housework corresponds to those sexual encounters undertaken when the couple is not alone. Just as omitted variable bias is a serious threat to the validity of statistical analysis, we echo concerns voiced by Stanley and Rhoades (2014) about the threat of included variable bias, especially when a control variable functions as a proxy for the dependent variable. At a minimum, we advocate the need to also present statistical results that are unadjusted for covariates (see Simmons, Nelson, & Simonsohn, 2011) to ensure that associations are not reliant on another variable.

Finally, our study points to the utility of the relational developmental systems perspective (Lerner et al., 2013) to guide exploration of the ways in which individual behaviors are intertwined with dyadic functioning. Grounded in the life-span approach, this conceptual frame stresses the interplay of individual characteristics and behaviors and relational dynamics as the relationship evolves over time. The relational developmental systems perspective, as applied to the current study, demanded the use of longitudinal, multiwave research to explicitly test the temporal associations between housework and sexuality. Indeed, this approach was instrumental in motivating the autoregressive cross-lagged approach ultimately responsible for unearthing the finding that male partner contributions to housework and couple sexuality are not associated over time, whereas perceived fairness of male partner contributions exhibits a unidirectional link to better sexual functioning. Additionally, the relational focus of this theoretical frame necessitates a truly dyadic approach to the study of couple relations, as data from both partners are optimal to understand the nature of couple dynamics.

Limitations

The key limitation of this study is that all constructs were assessed with only one or two items. This is most notable for the assessment of male partner contributions to housework, as one item encompasses a variety of household tasks. Abbreviated measures are common in large-scale studies, such as pairfam, but a multi-item measure would certainly provide greater precision. Along these lines, perceived fairness of male partner housework contributions was assessed only by male partner self-report. Future work should seek to replicate these findings using female partner perceptions of fairness regarding the male partner’s housework contributions, as this variable may be even more diagnostic of couple sexuality (e.g., Baumeister & Vohs, 2004). Although the use of longitudinal data spanning 5 years is a clear strength of this study, the enactment (or not) of housework and dyadic sexuality occurs on a day-to-day basis. This study does not shed light on the interrelations between housework and sex at this level but focuses on how they unfold over a broader time span. Daily diary studies would prove a nice addition to this literature. Finally, our longitudinal examination of the associations between male partner share of housework and couple sexuality drew from a diverse sample of couples at different points in the life span. As such, there may be critical periods in which male partner contributions to housework are more impactful on couple sexuality. For example, recent research found that men’s share of housework decreases across the transition to parenthood (Yavorsky, Kamp Dush, & Schoppe-Sullivan, 2015), and this reduced share may be consequential for sexual functioning. Examination of sex and housework across major life transitions warrants future investigation.

Conclusion

This study sought to understand connections between male partners’ share of housework and perceived fairness of their housework contributions with couple sexual frequency and satisfaction over 5 years. Contrary to previous cross-sectional research, male partner share of housework was not associated with sexual functioning 1 year later. But when male partners reported making a fair contribution to housework, the couple enjoyed more frequent and satisfying sex in the future. These findings are of great importance.
to couples seeking to maintain sexual intimacy while also balancing the demands of daily life and those professionals charged with the task of helping couples realize this goal. Rather than avoiding chores in the hopes of having more sex, as prior research would imply, men are likely to experience more frequent and satisfying (for both partners) passion between the sheets when they simply do their fair share. We suspect that this will involve scrubbing dishes from time to time.

References


Thornton, A., & Young-DeMarco, L. (2001). Four decades of trends in attitudes toward family issues in the United States: The 1960s through...
Call for Papers for a Special Section of the Journal of Family Psychology

Military Deployment Communication: New Findings and Conceptual Frameworks

Editors: Steven L. Sayers and Galena Rhoades

The Journal of Family Psychology invites manuscripts for a special section on military deployment communication.

The ability of military service members to maintain regular communication with their intimate partners and spouses during their deployment to a combat has increased dramatically in the last decade. Researchers have begun to expand beyond investigating the role of written communication for couples experiencing this type of separation. Only recently have studies been conducted on the impact of modern communication (e.g., Skype and instant messaging) on the job of the service member and the functioning of both service member and spouse. The literature in this area, however, lacks an accepted conceptual framework for understanding these modes of communication. Furthermore, there has not been an exploration of the reasons why inquiry in this area is important. For instance, what individual- and couple-based outcomes are important to examine and why, and what implications do these findings have for military policy, training, and deployment preparation for military families?

The intent of this special section is to bring together empirical papers that contribute to the developing conceptual frameworks of deployment communication and a broader consideration of the impact of deployment communication on the psychological health and well-being of military families. Papers that contribute new findings and advance the development of this important area of research will be considered for publication.

The deadline for receipt of papers for this special section is **August 1, 2016**.

Questions regarding the special section should be addressed to the section editors, Steven L. Sayers (steven.sayers@va.gov) and Galena Rhoades (grhoades@du.edu). Please follow the journal’s Instructions to Authors found elsewhere in this journal for information about how to prepare an article. Manuscripts must be submitted electronically through the Manuscript Submission Web Portal of the Journal of Family Psychology (http://www.apa.org/pubs/journals/fam/?tab=4).

Please be sure to specify in the cover letter that the submission is intended for the special section on Military Deployment Communication. All papers will be initially screened by the editors, and papers that fit within the scope of this special section will be sent out for blind peer review.