Housework and Sex

Housework and Sex in Midlife Marriages: An Examination of Three Perspectives on the Association

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Studies of the link between housework and sex sometimes reach divergent conclusions—partly resulting from varying perspectives on this relationship. We identify three perspectives found in prior studies of housework and sex—temporal, distributional, and fairness—each reflecting a different view of the processes linking these two domestic realms. To contribute to this literature, we examine housework measures reflecting each perspective. Negative binomial and OLS regression models using data from the National Survey of Midlife in the United States (MIDUS 2, 2004–2006) reveal that housework measures reflecting the fairness and distributional perspectives are significantly associated with sexual satisfaction but not frequency. Lower sexual satisfaction is associated with wives' greater investment in housework than husbands' and the view of housework arrangements as unfair to wives. These findings, which held for wives and husbands, suggest that the inequitable, and gendered, housework arrangements of many heterosexual married couples may negatively affect their sex lives. Measures reflecting the temporal perspective are associated with neither sexual satisfaction nor frequency. Our findings are derived from an older sample than those used in most prior studies of this topic, raising the possibility that some processes linking housework and sex change as individuals age and their relationships lengthen.

The ongoing movement toward equality in wives' and husbands' household labor has spurred research on its implications for marital stability and quality (Fisher et al. 2006). Garnering recent scholarly attention and public interest (e.g., *New York Times*; Gottlieb 2014) is the question of how housework and its division within couples affects married people's sexual lives. However, the relatively few studies on this topic ask slightly different questions about the link between housework and sex and, not surprisingly, draw different conclusions. For example, one study focuses on time spent in housework and finds higher sexual frequency among wives and husbands doing more housework, leading to the conclusion that couples who "work hard, play hard" (Gager and Yabiku 2010). Another study, focusing on types of tasks, finds more sex among couples with more,

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Social Forces 96(3) 1325–1350, March 2018
doi: 10.1093/sf/sox088
Advance Access publication on 26 December 2017

rather than less, traditional gender divisions in household labor (Kornrich, Brines, and Leupp 2013). In contrast, another study reports highest sexual frequency and satisfaction among couples in which men are viewed as doing their fair share of housework (Johnson, Galambos, and Anderson 2016). We argue that prior studies often reflect different perspectives on housework's effect on the sexual aspect of marriages, with this variation contributing to apparent discrepancies in some of their conclusions.

We identify three perspectives on the link between housework and sex, reflecting different views of the processes linking these two realms of intimate relationships. These differences lead to variation in both the conceptualization and operationalization of housework's most relevant features to the sexual aspects of marriages. One perspective, the temporal perspective, views housework and sex as competing for limited hours in the day (and night), an orientation leading to a focus on number of housework hours (e.g., Gager and Yabiku 2010). Another view, the distributional perspective, focuses on housework's distribution within couples, with these studies incorporating measures of either relative contributions or distributions of specific tasks (e.g., Carlson et al. 2016; Johnson, Galambos, and Anderson 2016; Kornrich, Brines, and Leupp 2013). A third perspective, centering on fairness, sees subjective assessments, particularly those related to fairness (or equity), as central to sexual relationships (e.g., Hatfield et al. 1982; Johnson, Galambos, and Anderson 2016; Rao and DeMaris 1995).

Our study is one of the few examining more than one of these perspectives on the relationship between housework and sexual relationships. To our knowledge, only one study includes measures reflecting each perspective (Carlson et al. 2016), and two studies include measures derived from two perspectives (i.e., Johnson, Galambos, and Anderson 2016; Kornrich, Brines, and Leupp 2013). We examine housework measures derived from each, including possible interactions between them. A further contribution is our study's use of a nationally representative American dataset not previously employed in the examination of connections between these two highly salient, and often contentious, marital life spheres (Bianchi et al. 2012; Risch, Riley, and Lawler 2003). The second wave of Midlife in the United States also permits an investigation among individuals at a later life stage than most prior studies. Our respondents—averaging 55 years—are approximately 10 years older than those in most studies (e.g., Carlson et al. 2016; Gager and Yabiku 2010; Kornrich, Brines, and Leupp 2013; Rao and DeMaris 1995; for an exception, see Elliott and Umberson [2008]). They also have longer marital durations—averaging 27 years—that more closely approximate the national median length of first marriages of 21 years (Elliott and Simmons 2011).

Background

The past several decades have seen dramatic shifts in housework, stemming from women's greatly expanded involvement in paid work. In 1965 approximately 39 percent of women were employed, compared with 57 percent in 2013. Further, the gap in women's earnings relative to men's has narrowed for full-time workers

from 62 percent in 1979 to 82 percent in 2013—trends driven by women's greater access to and pursuit of higher education and their presence in a wider range of occupations, including higher-earning ones traditionally restricted to men (Bureau of Labor Statistics 2014). Economic and social shifts also have occurred within couples, with 29 percent of wives earning more than their husbands in 2012, compared with only 18 percent in 1987 (Bureau of Labor Statistics 2014). Women's greater involvement in and earnings from paid work produced shifts in housework. As Bianchi and colleagues (2012) reported, in 1965 married women spent approximately seven times more hours doing housework each week than did married men (i.e., 34 hours for women and 5 for men)—a ratio that by 2010 had fallen to less than two to one (i.e., 18 hours for women and 10 hours for men). Although husbands spend more time on some tasks than do wives, such as repairs and outdoor chores, their contributions to core tasks, like cooking and cleaning, remain substantially lower than their wives' (Bianchi et al. 2012).

These trends have spurred research on their consequences for relationships between husbands and wives, including a small literature examining housework's effect on sex lives. Studies addressing this issue, however, often draw different conclusions. We argue that this variation partially derives from different views of the processes underlying the housework and sex link—leading to different conceptualizations of housework's central feature thought to be relevant to sexual relationships, and thus to different operationalizations of housework. To clarify the findings, we review the housework and sex studies employing each of three perspectives we identify in the literature—temporal, distributional, and fairness perspectives. Our review incorporates consideration of the gendered role expectations related to sex and housework in the United States, as studies have tended to use American samples (as does ours). We focus on studies of the sexual aspect of marriages, but we review studies from the more extensive literature linking housework to a broader construct to which couples' sexuality closely relates—marital quality (Karney and Bradbury 1995).

Temporal Perspective

Viewing housework and sex as competing for limited time, the temporal perspective derives from the observation of growing time demands resulting from increases in dual-earner couples and women's hours in paid labor (Jacobs and Gerson 2004; Sayer 2005). These time squeezes are especially felt by married couples. Illustrating this trend, only 36 percent of dual-earner couples worked a combined 78 or more hours per week in 1970, compared with more than 60 percent of such couples working 82 or more hours per week in 2000 (Jacobs and Gerson 2004). With couples clocking long hours, they have less time—and emotional and physical energy—to cultivate the sexual aspect of their marriages (Elliott and Umberson 2008). Studies vary in the extent to which they explicitly draw on the temporal perspective, with most reflecting an emphasis on time more in their housework measures than their theoretical framing (for an exception, see Gager and Yabiku [2010]). The housework measure used in these studies, particularly quantitative ones, is number of housework hours—with some

using total hours (e.g., Gager and Yabiku 2010) and others examining hours spent across tasks (e.g., Bartley, Blanton, and Gilliard 2005; Blair 1993; Kornrich, Brines, and Leupp 2013).

Some studies report that more time in housework can depress couples' sex lives, while others find it may enhance them. Pointing to a negative effect, Elliott and Umberson's (2008, p. 402) interviews with 31 couples, married for at least 7 years and averaging 53 years of age, found that—especially within dual-earner couples—"sex is low on wives' list of priorities because they are tired, busy, and stressed out." This observation led the authors to argue that sex may be part of the "third shift"—the family emotion work for which women tend to be responsible (Hochschild 1997). The opposite pattern was reported in a study by Gager and Yabiku (2010) using the second wave of the National Survey of Families and Households (NSFH; 1992–1994). Their analyses of nearly 7,000 couples, with wives averaging 41 years of age and husbands 44 years, revealed that husbands and wives spending more time on housework report more frequent sex. Also using the second wave of NSFH, Kornrich and colleagues (2013) extend this finding by revealing that couples' total housework hours are positively associated with sexual frequency but are unrelated to sexual satisfaction. Carlson and colleagues (2016) reveal a similar pattern, using data from 487 couples surveyed online in the 2006 Marital and Relationship Survey, with respondents averaging 38 years of age. They found that more hours by husbands were associated with greater sexual frequency and more hours by wives were associated with greater satisfaction with their sexual frequency—but housework hours of neither husbands nor wives predicted overall sexual relationship quality. Taken together, these studies raise the possibility that more housework hours may increase sexual frequency but may be unrelated to, or depress, sexual satisfaction.

Research suggests, however, that housework hours' effect on couples' sex lives is shaped by gender—given norms and realities regarding husbands' versus wives' investment in housework. Elliott and Umberson's (2008) study, for example, found that women's greater housework time diminished energy to invest in their sex lives—with consequences for couples' sexual frequency and women's and men's sexual satisfaction. Similarly, Hochschild and Machung (1989, pp. 8–9) note that the "speed-up" of paid work and family life falls most heavily on women, often leaving them "emotionally drained." Different conclusions are drawn from quantitative studies reflecting a temporal perspective, which tend to address gendered housework norms by distinguishing between hours spent in female-typed tasks (i.e., "core" or "low-control" tasks, like cooking and cleaning) and male-typed tasks (i.e., "non-core" or "high-control" tasks, like outdoor work and paying bills). Kornrich and colleagues (2013) found that husbands' fewer hours—and wives' greater hours—in core housework, along with husbands' greater non-core hours, predicted greater sexual frequency. These findings illuminate the gendered effect of housework hours on sex, but they also allude to the impact of housework's distribution within couples—the focus of the distributional perspective.

A temporal perspective also has been employed in studies examining the association between housework and other dimensions of marital quality, with results

supporting either a negative effect (e.g., Bartley, Blanton, and Gilliard 2005; Blair 1993, 1998) or no effect (e.g., Greenstein 1996). Further, they suggest that housework's effect may vary depending on who is investing time and on which tasks—with some findings again hinting at the distributional perspective. More time spent on female-typed tasks may be especially detrimental to marital quality. For example, Bartley and colleagues (2005) found, in a sample of over 200 married individuals, that perceived marital equity was lower among women and men spending more hours in low-control (i.e., "core" or "female-typed") tasks. No relationship was found between high-control (i.e., "non-core" or "male-typed") tasks and perceived marital equity. Also pointing to a possible negative effect of female-typed tasks—or perhaps the effect of husbands' doing more of them—a study by Blair (1993), using the first wave of NSFH (1987–1988), found that husbands' total hours spent in female-typed tasks was positively associated with their reported frequency of open disagreements. Also pointing to the possible negative effect—though only for husbands' marital quality—of time investments that violate traditional gender roles, fewer hours of housework by wives was associated with husbands' greater likelihood of reporting that divorce was possible. In contrast, neither husbands' nor wives' housework hours were associated with wives' marital quality.

Distributional Perspective

The distributional perspective conceptualizes the relationship between housework and married couples' sexual lives as hinging less on the amount of housework than its distribution within couples. This distribution—along with its interplay with other allocations of effort and time, especially to paid work—is shaped by gender, with lingering cultural assumptions about "women's work" and "men's work" contributing to the devaluation of housework and women's greater time spent doing it (Bianchi et al. 2012). Working within the distributional perspective, scholars have made two predictions about housework and sex. One derives from the observation that more egalitarian distributions predict better relationship quality (e.g., Amato et al. 2003; Kamp Dush and Taylor 2012; Rogers and Amato 2000; Wilkie, Ferree, and Ratcliff 1998), which could enhance sexual relationships. The opposite prediction also has been made: Gendered performances of household labor may catalyze couples' sexual relationships, given the gendering of sexual scripts (e.g., Kornrich, Brines, and Leupp 2013; Laws and Schwartz 1977; Schwartz 1994; Simon and Gagnon 1986).

Quantitative studies reflecting this perspective measure housework in several ways. Some use respondents' estimations of chore distributions, with categories like "she does it all," "we split it evenly," and "he does it all" (e.g., Carlson et al. 2016; Johnson, Galambos, and Anderson 2016). Others use reports of husbands' and wives' housework contributions to calculate measures of household labor segregation, with values ranging from fully shared to fully segregated (e.g., Blair 1998; LaVee and Katz 2002). Similarly, some studies use husbands' and wives' reported contributions to calculate a percentage of the total performed by

one party—for example, husbands' hours as a proportion of couples' hours (e.g., Amato et al. 2003; Kornrich, Brines, and Leupp 2013).

Studies illustrating this perspective report a range of findings, with some suggesting that more egalitarian arrangements enhance sex lives, others supporting the opposite conclusion, and still others finding no relationship. Kornrich and associates' (2013) study found that husbands' lower share of core housework—and greater share of non-core housework—predicted more frequent sex. This traditional division of household labor also predicted higher sexual satisfaction among wives, though it was unrelated to husbands' satisfaction. The general finding resonates with Schwartz's (1994) study of "peer marriages," revealing that sexual passion may be more challenging to maintain in more egalitarian relationships, given the cultural construction of sexuality in hierarchical terms. Also suggesting a negative effect of nontraditional distributions, Carlson and colleagues' (2016) study found that couples in which the male partner does the majority of housework (representing approximately 5 percent of their sample) reported less frequent and lower-quality sexual relationships than more egalitarian couples. However, they found that egalitarian and traditional couples differed in neither sexual frequency nor quality. In contrast, Elliott and Umberson's (2008, p. 402) interviews revealed that traditional housework distributions may reduce sexual frequency and satisfaction for one or both partners; as they explain, women's carrying of the "bulk of the responsibilities in the domestic realm along with holding down a full-time job … dampens their sexual desire." They found that couples often navigate this situation by either altering their sexual selves (with women inducing greater desire and men dampening theirs) or exchanging sex and housework (with women using sex to induce men to do housework and men using housework to increase the couple's sexual frequency). Contrasting with research reporting positive or negative effects of egalitarianism, Johnson and colleagues' (2016) study reported no significant effect of male partners' share of housework on either sexual frequency or satisfaction. This study—the only longitudinal analysis of housework and sex that we have found—followed German couples from 2008 to 2012, with relationship durations averaging 10 years.

Compared with studies of sexual relationships, those examining marital quality reveal more support for positive effects of egalitarian arrangements, especially for wives (e.g., Amato et al. 2003; Blair 1998). Two studies using data from the Marital Instability over the Life Course Study provide illustrations. Rogers and Amato (2000) found that husbands' higher proportions of housework are associated with declines in marital discord, and Kamp Dush and Taylor (2012) found that housework sharing increased the likelihood of marriages' being characterized as high-happiness, low-conflict. Other studies point to different effects of egalitarian arrangements on wives' and husbands' marital quality. In research using data from both the Marital Instability over the Life Course Study and the Survey of Marriage and Family, Amato and colleagues (2003) found that husbands' performing a greater share of housework was associated with lower marital quality among husbands, but higher marital quality among wives. Also pointing to differing effects, Blair (1998) found, in a study using data from the second wave of NSFH, that greater household

labor segregation was associated with greater marital happiness for husbands but not wives.

Fairness

Contrasting with the temporal and distributional perspectives' focus on the objective arrangement—whether the time spent, the relative contribution, or distribution of tasks—the third perspective highlights subjective assessments of the arrangement's fairness. This perspective is illuminated by two strands of exchange theory—equity theory and distributive justice (e.g., Kawamura and Brown 2010; Thompson 1991; Wilkie, Ferree, and Ratcliff 1998). These strands share exchange theory's focus on individuals' assessments of costs and benefits as determinants of behavior, but they contribute different insights into this process (Cook and Hegtvedt 1983). Equity theory predicts that perceived fairness leads to the best emotional outcome, as unfairness leads to guilt if over-benefiting or anger if under-benefiting. A distributive justice framework modifies equity theory by recognizing the role of feelings of entitlement or deservedness. Rather than reflecting a straightforward calculation of partners' relative benefits, perceived fairness involves perceived deservedness. Feeling deserving of or entitled to particular arrangements can produce a sense of fairness that defies objective circumstances, as in the case of women's greater involvement than men in household labor (Baxter 2000; Benin and Agostinelli 1988).

Studies demonstrate a clear connection between perceived fairness and married couples' sex lives (e.g., Johnson, Galambos, and Anderson 2016; Rao and DeMaris 1995). Examining this connection, a study by Rao and DeMaris (1995) used the first wave of NSFH, restricting the sample to married or cohabiting couples entering these relationships within the past five years. Using ratings of relationship fairness, ranging from very unfair to the respondent to very unfair to their spouse, the authors found that those on the midpoint of the scale (i.e., those perceiving their relationships as equitable) tended to report greater sexual frequency. Additional support is found in Hatfield and colleagues' (1982) study, using a sample of 53 newlywed couples ranging in age from 17 to 46. Examining assessments of the overall relationship "deal" one gets relative to one's partner, the study found that respondents reporting equity experienced greater sexual satisfaction and emotional closeness after sex and more favorable perceptions of partners' sexual satisfaction, compared with those feeling over-benefited—and especially those feeling under-benefited. A more recent study, by Johnson and colleagues (2016), found that couples in which male partners described themselves as doing "their fair share" had higher sexual frequency and satisfaction than their peers not doing their fair share—a group defined in the study as those either doing less or more than their fair share. Similarly, Carlson and associates (2016) examined a construct related to fairness—that is, satisfaction with the division of labor—and found that greater satisfaction was associated with greater sexual frequency and satisfaction.

Perceived fairness, however, is influenced by women's greater housework contributions, with implications for couples' sex lives. Women do more housework

than men (Bianchi et al. 2012) and, not surprisingly, are more likely to view their housework arrangements as unfair, especially women who are employed and work more hours (Kornrich and Eger 2016). Qualitative studies reveal processes through which perceived unfairness can shape couples' sex lives. As Hochschild and Machung (1989) observe in the marriage of Nancy and Evan, one of the couples featured in *The Second Shift*, the wife's feelings of unfairness in housework's allocation affected their sex life, with Nancy reluctantly resorting to sexual withholding to gain a more equitable arrangement. Similarly, Elliott and Umberson's (2008, p. 401) study described a gendered "tit-for-tat" exchange of sex for housework among some couples—with husbands using housework to increase sexual frequency and wives using their willingness to have sex as a way to increase husbands' housework.

Studies also have found that perceived fairness—which is shaped by gender-related feelings of deservedness—has implications for other aspects of marital relationships. Perceiving an inequitable distribution of housework is associated with lower marital quality (e.g., Blair 1993, 1998; Claffey and Michaelson 2009; Dew and Wilcox 2011; Greenstein 1996; Rogers and Amato 2000). Some studies have found, in fact, that perceptions of fairness are marital quality's strongest predictors (e.g., Blair 1993; Dew and Wilcox 2011). However, perceptions of men's housework participation appear especially influential in both partners' marital satisfaction, as indicated by research finding that women's satisfaction is higher when they feel their husbands do their "fair share" of housework, while men's is higher when they do what they consider to be their "fair share" (Yogev and Brett 1985). But husbands' recognition of wives' housework also is important, perhaps illustrating housework's symbolic enactment of gender. Supporting this argument, wives are more likely to view the distribution as unfair when husbands underestimate wives' proportional contribution to housework (Wilkie, Ferree, and Ratcliff 1998). Studies also have revealed a gender difference in the processes underlying assessments of fairness in housework's distribution, suggesting that the making of social comparisons in order to gauge one's relative deprivation may be more important for women than men (Kornrich and Eger 2016).

Comparison of Perspectives

Studies reflecting these three perspectives sometimes draw different conclusions. For example, studies illustrating the fairness perspective tend to find that greater perceived fairness is associated with greater sexual frequency and satisfaction (Hatfield et al. 1982; Johnson, Galambos, and Anderson 2016; Rao and DeMaris 1995)—with research also incorporating distributional measures revealing that perceived fairness, but not housework distribution, influences couples' sex lives (Johnson, Galambos, and Anderson 2016). In contrast, some research reflecting a distributional perspective finds that greater sexual frequency and satisfaction are associated with a less—rather than more—equitable distribution of chores, as well as a more gender-typed distribution of them (Kornrich, Brines, and Leupp 2013). Similarly, this suggestion that more egalitarian relationships diminish married couples' sex lives is challenging to reconcile with some of the research using

temporal measures, reporting that more housework—by not only wives but also husbands—predicts greater sexual frequency (Carlson et al. 2016; Gager and Yabiku 2010).

Assessing the utility of these three perspectives is difficult because studies tend to employ only one or two of them. Further, limited attention is given to possible interactions between them. As an illustration, spending many hours on housework within the context of non-egalitarian distributions and/or those perceived as unfair may be especially detrimental to sexual frequency or satisfaction. Associations of housework and sexual relationships, particularly sexual satisfaction, also may differ for women and men, as some studies suggest (e.g., Blair 1998; Kornrich, Brines, and Leupp 2013). For example, some research finds that more traditional distributions of labor are associated (positively) with women's but not men's sexual satisfaction (Kornrich, Brines, and Leupp 2013). Further, associations between housework and sex, including possible interactions with gender, may differ for sexual frequency and satisfaction. Taken together, prior studies raise the possibility that housework hours may affect sexual frequency, while housework distribution and its perceived fairness may affect both sexual frequency and satisfaction.

Research Questions and Hypotheses

Our study's contribution centers on its examination of the housework and sex relationship through each of these theoretical lenses. Using measures tapping each perspective, we examine their associations with sexual frequency and satisfaction. We also explore possible interactions not only between them but also with gender. Our study further contributes to this literature by employing a nationally representative dataset (MIDUS 2) that has not been used to address this issue. Most studies have relied either on non-representative samples (e.g., Carlson et al. 2016; Hatfield et al. 1982) or NSFH (e.g., Gager and Yabiku 2010; Rao and DeMaris 1995). An exception is the study by Johnson and colleagues (2016) using a nationally representative sample of German couples. Another benefit of MIDUS 2 is its older average age of respondents, compared with samples used in most prior studies (e.g., Carlson et al. 2016; Hatfield et al. 1982; Johnson, Galambos, and Anderson 2016; Kornrich, Brines, and Leupp 2013). Because housework demands persist over married individuals' lives, their association with sex is an important topic to study in samples of varying ages and marital durations.

We test hypotheses derived from each perspective. Studies reflecting a temporal perspective, which report conflicting patterns, lead us to offer two hypotheses—both centered on sexual frequency, which is more consistently associated with housework hours than is sexual satisfaction. Drawing on research suggesting that more housework time erodes couples' sex lives (Elliott and Umberson 2008) and relationship quality (e.g., Blair 1993, 1998), we hypothesize that more housework hours (by husbands and wives) are associated with lower sexual frequency. Drawing on studies finding the opposite (e.g., Gager and Yabiku 2010; Kornrich, Brines, and Leupp 2013), we also offer the prediction that more housework hours are associated with greater sexual frequency. The conflicting

findings of studies illustrating a distributional perspective lead to three hypotheses—all centered on sexual frequency and satisfaction, as both dimensions have been associated with housework distribution. Consistent with some findings (e.g., Kornrich, Brines, and Leupp 2013), less egalitarian housework arrangements may be associated with greater sexual frequency and satisfaction than more egalitarian arrangements. However, other studies, particularly in the marital quality literature (e.g., Amato et al. 2003; Blair 1998), point to the opposite prediction—that more egalitarian relationships are associated with greater sexual frequency and satisfaction. The observation of no relationship between housework distribution and either sexual frequency or satisfaction—found in the only longitudinal study of housework and sex of which we are aware—leads to the third hypothesis, predicting no association. The greater consistency across studies reflecting the fairness perspective leads us to a single hypothesis: Perceiving housework's distribution as unfair to either husbands or wives is associated with lower sexual frequency and satisfaction.

Methods

Data

We use data from the second wave of the National Survey for Midlife in the United States (MIDUS 2; Ryff et al. 2004–2006). Funded by the MacArthur Foundation Network on Successful Midlife Development and National Institute on Aging, the survey was designed to allow investigations of behavioral, psychological, and social factors influencing health and well-being in midlife. The first wave of MIDUS was drawn in 1995 and 1996 from a nationally representative, random-digit dial sample of non-institutionalized, English-speaking adults between the ages of 25 and 74 from the contiguous states. Respondents ($n = 3{,}032$) completed a phone interview and self-administered, mailed questionnaire. Response rates for these components were 70 and 87 percent, respectively, yielding an overall response rate of 61 percent. Collected a decade later, MIDUS 2 involved phone interviews and mailed questionnaires with 65 percent of the original participants ($n = 2{,}257$). The questionnaire portion contained two adjacent sections, titled "marriages or close relationships" and "sexuality," that included the housework and sexual relationship items we used. Retention rates were higher among women, whites, married individuals, and those with higher education, better health, and access to health insurance, thus limiting the generalizability of our findings (Radler and Ryff 2010).

We use MIDUS 1 rather than MIDUS I for several reasons. First, housework's distribution—though undergoing the most dramatic change between 1965 and 1985—has shifted a bit since the late 1990s, with married women's total weekly housework hours increasing and married men's declining (Bianchi et al. 2012). Even without any shifts in housework time (or its within-couple distribution), the relationship between housework and sex may have changed, for example, as wives' earnings have increased relative to husbands' (Bureau of Labor Statistics 2014). Although MIDUS 2 is now over a decade old, it offers a more contemporary picture of the housework and sex relationship than does MIDUS I. Second, it permits

an update on other studies of housework and sex. Of those using nationally representative U.S. data, all have employed either the first or second wave of NSFH, collected in 1987–1988 and 1992–1994 (Gager and Yabiku 2010; Kornrich, Brines, and Leupp 2013; Rao and DeMaris 1995). Third, MIDUS 2 allows a focus on housework and sex in middle and later life. Our sample—with an average age of 55—is approximately 10 years older than that of most studies in this literature (e.g., Carlson et al. 2016; Gager and Yabiku 2010; Johnson, Galambos, and Anderson 2016; Kornrich, Brines, and Leupp 2013; Rao and DeMaris 1995). The only exception of which we are aware is Elliott and Umberson's (2008) study of 71 couples, averaging 53 years of age.

We restricted the sample to married, heterosexual respondents completing the MIDUS 2 phone interview and mailed questionnaire. We omitted 1,096 who were either unmarried or reported being homosexual or bisexual. These omitted respondents included 54 heterosexual cohabitors, excluded because they differ from the married—performing less housework and reporting higher sexual frequency (Shelton and John 1993; Yabiku and Gager 2009). In addition, we lacked adequate statistical power to compare these groups. We also omitted 20 respondents reporting two or more sexual partners in the past year. This omission addresses a limitation of the sexuality variables—that is, they do not refer specifically to sexual relations with one's spouse/partner. We further limited the study sample due to missing values on the dependent variables. Missing values on sexual satisfaction resulted in relatively few omissions—less than 2 percent ($n = 18$). More were missing on sexual frequency—approximately 14 percent ($n = 163$)—perhaps reflecting the topic's sensitivity. To handle this difference, we conduct sexual frequency analyses using this smaller number of respondents ($n = 968$) and sexual satisfaction analyses using the larger number of available cases ($n = 1{,}116$). To explore whether these missing cases might bias our results, we also ran models predicting sexual frequency, assigning a value of zero to those missing; results did not differ from those we present. Compared with respondents included in the sexual frequency analyses, those omitted were older, married for longer durations, and less likely to be employed. These differences also were significant in a comparison of respondents omitted versus included in the sexual satisfaction analyses. In addition, respondents omitted from these analyses had lower income, worse physical and mental health, and spouses in worse physical and mental health and were less likely to have employed spouses. These differences suggest that the results presented may not be generalizable to older, less socioeconomically advantaged, and less healthy married people.

Measures

We examined two sexual relationship measures—frequency and satisfaction—both reported by the respondent. Sexual frequency was measured using responses to the following question: "Over the past six months, on average, how often have you had sex with someone?" The six response categories were "two or more times a week," "once a week," "two or three times a month," "once a

month," "less often than once a month," and "never or not at all." We recoded responses to create a continuous variable indicating the number of times the respondent has sex per month (e.g., original response category "once a week" was recoded to 4), ranging from 0 to 8. We also conducted analyses using the original coding of the variable (i.e., integers ranging from 0 = *never or not at all* to 6 = *two or more times a month*); results of these analyses did not differ substantively from those we present. Sexual satisfaction was measured using responses to the following question: "Using a scale from 0 to 10, where 0 means 'the worst possible situation' and 10 means 'the best possible situation,' how would you rate the sexual aspect of your life these days?" We have maintained the original responses, ranging from 0 to 10. Sexual frequency and satisfaction are correlated at 0.49 ($p < 0.001$) for women and 0.57 ($p < 0.001$) for men.

To capture the temporal perspective, we use wives' and husbands' housework hours, both reported by respondents. As MIDUS 2 collected individual- rather than couple-level data, the measure of wives' hours relied for the women in the sample on their reports of their own hours, but for the men on their reports of their wives' hours. Correspondingly, the measure of husbands' hours was drawn for men from their self-reported hours, while for women from their reports of husbands' hours. Our measures used responses to the following two questions: "In a typical week, about how many hours do you generally spend doing household chores?" and "In a typical week, about how many hours does your spouse/partner spend doing household chores?" We used a set of four dichotomous variables for wives' hours—that is, 1–10 chore hours, 11–20 chore hours, 21–30 chore hours, and more than 30 chore hours. We used three dichotomous variables for husbands' hours, collapsing the two highest categories due to small cell counts—that is, 1–10 chore hours, 11–20 chore hours, and more than 20 chore hours. Preliminary analyses examined alternative specifications of this measure, such as number of hours and logged hours; substantive conclusions did not differ from those we present.

For the distributional perspective, we examined both an objective and a subjective measure. We present results using the subjective measure, as it was the only one to reach significance in any of the models. The objective measure used a set of three dichotomous variables (i.e., "she does more," "he does more," and "chores split equally") derived from responses to the two housework questions described above. The subjective measure used responses to the following question: "Running a household involves a lot of chores (like cooking, shopping, laundry, cleaning, yard work, repairs, and paying bills), and couples vary in who does these things. Overall, do you do more of such chores, does your spouse or partner do more of them, or do you split them equally?" Responses were "you do a lot more than your spouse," "you do somewhat more than your spouse," "you do a little more than your spouse," "chores are split equally," "your spouse does a little more than you," "your spouse does somewhat more than you," and "your spouse does a lot more than you." We used responses to create into a three-category dummy variable—"she does more," "he does more," and "chores split equally." Although it loses detail (in the interest of parsimony), our measure captures the central distinctions outlined by the distributional perspective. We note that we did not employ a

single continuous measure, ranging from "husband does a lot more" to "wife does a lot more," because it does not capture these distinctions; it places egalitarian relationships at the midpoint of the range, preventing a test of whether these relationships are most beneficial for sexual relationships, as marital quality studies suggest (e.g., Amato et al. 2003). Preliminary models explored an alternative specification of housework distribution—wives' proportion of total housework—because it is used in studies on sexual relationships (e.g., Kornrich, Brines, and Leupp 2013) and found in the broader housework literature (e.g., Claffey and Mickelson 2009). However, we note that this measure also does not permit an examination of egalitarianism, but rather reflects "degree of non-traditionalism" (or, depending on coding, "traditionalism"). For example, for men, a value of 0 corresponds to a highly non-traditional relationship, a value of 0.5 to an egalitarian arrangement, and a value of 1 to a highly traditional arrangement. Our analyses revealed that this measure was significantly associated with neither sexual frequency nor satisfaction.

For the fairness perspective, we used responses to two questions that follow those on housework hours: "How fair do you think this arrangement of household chores is to you?" and "How fair do you think this arrangement of household chores is to your spouse or partner?" Responses were "very fair," "somewhat fair," "somewhat unfair," and "very unfair." Using responses to these questions, we created two dichotomous variables—unfair to her (1 = "unfair" and 0 = "fair") and unfair to him (1 = "unfair" and 0 = "fair"). We also conducted analyses using variables capturing perceptions of greater unfairness—that is, 1 = "very unfair" and 0 = "somewhat unfair, somewhat fair, or very fair." Substantive results did not differ from those presented.

Models controlled for individual characteristics influencing sexual relationships, including gender, age, health, and religious participation (Gager and Yabiku 2010; Laumann et al. 2006). Dichotomous variables indicated gender (1 = "female," 0 = "male") and race (1 = "non-white," 0 = "white"). Age was measured in years, ranging from 35 to 84. Education was measured using a continuous variable based on responses to the question "What is the highest grade of school or year of college you completed?" Responses were recoded into a continuous variable indicating years of education (e.g., original response category "eighth grade/junior high school" was recoded to 8). Household income was measured using a pre-created variable in the MIDUS 2 data combining values on respondents', spouses', and other household members' wages, pensions, and Social Security and other government assistance. Self-rated physical and mental health were ordinal variables, ranging from 1 (*poor*) to 5 (*excellent*). Religious participation was measured using a scale (alpha = 0.85) created by averaging responses to two questions: "How often do you attend religious or spiritual services?" and "How often do you attend church or temple activities?" Higher values indicated greater participation, with responses ranging from 1 (*never*) to 6 (*once a day or more*).

Models also controlled for spouse and relationship characteristics affecting sexual relationships, including spouses' health, wives' and husbands' employment status, marital duration, and having young children (DeLamater 2012; Kornrich, Brines, and Leupp 2013). To capture spouses' physical health, we

used responses, ranging from 1 (*poor*) to 5 (*excellent*), to the following question: "How would you describe your spouse's or partner's physical health at the present time?" We used a similarly worded item to measure spouses' mental health. Two dichotomous variables measured wives' and husbands' employment status (1 = "employed," 0 = "not employed"). Like the housework variables, wives' employment status was derived for women respondents from their own reports and for men respondents from their reports of their spouses' employment. Similarly, husbands' employment status derived for men respondents from their own reports and for women respondents from their reports of their spouses' employment. Marital duration was measured in years. A dichotomous variable measured presence of young children (1 = "any children under age six," 0 = "no children under age six").

The relatively few cases with missing data on independent or control variables were handled using multiple imputation. Household income had approximately 4 percent missing. All other variables had less than 2 percent missing. To deal with these cases, we used ICE, a multiple imputation algorithm available in Stata (Royston 2005). ICE, based on the multiple imputation by chained equations method, creates imputed data sets using other variables as predictors. The imputed data sets are then combined to produce one set of results. Substantive results did not vary when we ran complete case analyses. We followed the recommendation by Graham, Olchowski, and Gilreath (2007) to generate 20 imputations.

Analytic Strategy

We examined the association between housework and sexual frequency using negative binomial regression, given the variable's positively skewed distribution. Sexual satisfaction was examined using ordinary least squares (OLS) regression. All models were weighted to adjust for sampling error. We ran five models for each dependent variable. The first model regressed the dependent variable on all control variables. The second through fourth models added to the baseline model variables tapping the temporal, distributional, and fairness perspectives, respectively. We also conducted several sets of analyses testing for possible interactions. One set examined whether the housework measures interact with one another to influence sexual frequency or satisfaction. A second set tested for gender differences in the association between housework and sexual relationships. A final set tested for three-way interactions involving gender and all possible combinations of the housework measures. Because we examined a large number of interaction terms, we applied a Bonferroni correction to adjust for the higher likelihood of Type I errors (i.e., incorrectly rejecting a null hypothesis).

Results

Table 1 reports means and standard deviations of variables, noting significant gender differences. Respondents report having sexual relations between three and four times a month, which is lower than frequency reported in other housework and

Table 1. Descriptive Statistics

	Total Mean (SD)	Women Mean (SD)	Men Mean (SD)
Sexual satisfaction	5.52 (2.83)	5.52 (2.91)	5.52 (2.74)
Sexual frequency[a] *	3.19 (2.71)	3.38 (2.79)	3.00 (2.62)
She does 0–10 chore hours†	0.39	0.37	0.42
She does 11–20 chore hours	0.34	0.35	0.32
She does 21–30 chore hours	0.16	0.16	0.15
She does >30 chore hours	0.11	0.12	0.10
He does 0–10 chore hours*	0.75	0.77	0.72
He does 11–20 chore hours**	0.20	0.16	0.23
He does >20 chore hours	0.06	0.06	0.05
Her chores >his chores***	0.61	0.69	0.52
His chores >her chores*	0.14	0.11	0.16
Chores split equally***	0.26	0.19	0.32
Chores unfair to her*	0.24	0.27	0.21
Chores unfair to him*	0.12	0.14	0.10
Female	0.49	–	–
Age***	55.59 (12.05)	54.14 (11.79)	56.96 (12.15)
Non-white	0.07	0.07	0.07
Wife employed**	0.57	0.60	0.52
Husband employed	0.66	0.67	0.66
Years of education	14.44 (2.65)	14.20 (2.51)	14.67 (2.75)
Household income[b] ***	8.28 (6.28)	8.23 (6.35)	8.33 (6.23)
Self-rated physical health	3.58 (0.97)	3.58 (0.96)	3.57 (0.97)
Self-rated mental health***	3.86 (0.89)	3.77 (0.91)	3.95 (0.87)
Religious participation**	2.62 (1.33)	2.75 (1.34)	2.50 (1.30)
Spouse physical health***	3.46 (1.06)	3.39 (1.08)	3.51 (1.03)
Spouse mental health	3.84 (1.01)	3.88 (1.01)	3.81 (1.02)
Marital duration	27.25 (15.65)	26.54 (15.70)	27.92 (15.59)
Any children under 6	0.08	0.07	0.09
N	*1,116*	*542*	*574*

Note: National Survey of Midlife Development in the United States (2004–06); [a]$n = 968$; [b]in units of $10,000; differences between women and men, † $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

sex studies (e.g., Carlson et al. 2016; Gager and Yabiku 2010), likely owing to our older sample. Women and men do not differ significantly on sexual satisfaction, but women do report slightly higher sexual frequency. Table 1 also reveals gender's influence on housework. Women spend more time doing housework—a pattern

illustrated, for example, by 27 percent of respondents indicating that wives do more than 20 hours of housework per week, compared with only 6 percent of husbands. Women and men respondents do not significantly differ in their reports of housework hours performed by wives, but their reports of husbands' hours do differ. Men are less likely than women to report that husbands do 0–10 hours and more likely that they do 11–20 hours—suggesting that men may overestimate husbands' hours or women may underestimate them. Consistent with housework hours, the majority of respondents—61 percent—report that wives do more housework than husbands. Only 14 percent report that husbands do more than wives, and 26 percent that housework is split equally. However, women's and men's reports differ on their views of housework's distribution in their marriages. While 69 percent of women report that they do more than their husbands, only 52 percent of men report this to be in the case in their marriages. Similarly, a higher percentage of men than women report that husbands either do more housework than wives (16 percent of men versus 11 percent of women) or spouses share chores equally (32 percent of men versus 19 percent of women). Women and men also differ in their perceptions of fairness. Although both women and men were more likely to see the housework arrangement as unfair to wives than unfair to husbands, women are significantly more likely than men to view it unfair—either to wives or husbands.

Table 2 reports results of the negative binomial regression of sexual frequency on housework measures. Model 1 reveals that higher sexual frequency is associated with having a spouse in better physical health and a marriage of shorter duration and not having young children. In the remaining models, we add to the baseline model measures reflecting each of the three perspectives on the relationship between housework and sex. None of the housework measures reach statistical significance.

Table 3 presents results of the OLS regression of sexual satisfaction on housework. Model 1 suggests a curvilinear relationship between age and sexual satisfaction, with the strength of the positive association decreasing with age. Higher sexual satisfaction also is associated with better physical health, greater religious participation, having a spouse in better mental health, and not having young children. The housework measures reflecting a temporal perspective that were added in model 2 do not reach significance. However, one measure tapping a distributional perspective added in model 3 is significant and indicates that wives' greater housework investment than husbands' is associated with lower sexual satisfaction, compared with chores being split evenly. Model 4, adding measures tapping a fairness perspective, reveals that perceived unfairness—in particular, unfairness to wives—is associated with lower sexual satisfaction. This variable, unlike the one indicating wives' greater investment in housework than husbands', remains significant (and at the 0.001 level) in model 5, containing all the housework variables included in prior models.

We also conducted three sets of analyses testing for possible interactions—two-way interactions between housework measures, two-way interactions between housework measures and gender, and three-way interactions involving housework and gender. These analyses revealed no significant relationships.

Table 2. Negative Binomial Regression of Sexual Frequency on Housework Measures Reflecting Temporal, Distributional, and Fairness Perspectives

	Model 1: Baseline *B* (SE)[a]	Model 2: Temporal *B* (SE)[a]	Model 3: Distributional *B* (SE)[a]	Model 4: Fairness *B* (SE)[a]	Model 5: Full *B* (SE)[a]
She does 0–10 chore hours[b]		−0.14 (0.10)			−0.15 (0.11)
She does 11–20 chore hours[b]		−0.11 (0.09)			−0.11 (0.09)
She does 21–30 chore hours[b]		−0.03 (0.10)			−0.03 (0.10)
He does 0–10 chore hours[c]		0.05 (0.14)			0.06 (0.14)
He does 11–20 chore hours[c]		0.09 (0.14)			0.09 (0.14)
Her chores >his chores[d]			0.02 (0.07)		0.01 (0.08)
His chores >her chores[d]			−0.00 (0.09)		0.02 (0.10)
Chores unfair to her				−0.04 (0.07)	−0.06 (0.08)
Chores unfair to him				−0.05 (0.10)	−0.04 (0.11)
Female	0.02 (0.06)	0.02 (0.06)	0.02 (0.06)	0.02 (0.06)	0.02 (0.06)
Age	0.02 (0.03)	0.02 (0.03)	0.02 (0.03)	0.02 (0.03)	0.02 (0.03)
Age^2	−0.00 (0.00)	−0.00 (0.00)†	−0.00 (0.00)	−0.00 (0.00)	−0.00 (0.00)†
Non-white	0.21 (0.11)†	0.21 (0.11)†	0.21 (0.11)†	0.20 (0.11)†	0.21 (0.11)†
Wife employed	−0.09 (0.06)	−0.06 (0.07)	−0.09 (0.06)	−0.09 (0.06)	−0.05 (0.07)
Husband employed	−0.15 (0.08)†	−0.16 (0.09)†	−0.16 (0.08)†	−0.15 (0.08)†	−0.16 (0.09)†
Years of education	−0.01 (0.01)	−0.01 (0.01)	−0.01 (0.01)	−0.01 (0.01)	−0.01 (0.01)

(*Continued*)

Table 2. ***continued***

	Model 1: Baseline *B* (SE)[a]	Model 2: Temporal *B* (SE)[a]	Model 3: Distributional *B* (SE)[a]	Model 4: Fairness *B* (SE)[a]	Model 5: Full *B* (SE)[a]
Household income[e]	−0.00 (0.00)	−0.00 (0.00)	−0.00 (0.00)	−0.00 (0.01)	−0.00 (0.00)
Self-rated physical health	0.05 (0.04)	0.05 (0.04)	0.05 (0.04)	0.05 (0.04)	0.05 (0.04)
Self-rated mental health	−0.02 (0.04)	−0.01 (0.04)	−0.02 (0.04)	−0.02 (0.04)	−0.01 (0.04)
Religious participation	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)
Spouse physical health	0.09 (0.04)*	0.09 (0.04)*	0.09 (0.04)*	0.09 (0.04)*	0.09 (0.04)*
Spouse mental health	0.06 (0.04)	0.06 (0.04)	0.06 (0.04)	0.05 (0.04)	0.06 (0.04)
Marital duration	−0.01 (0.00)*	−0.01 (0.00)*	−0.01 (0.00)*	−0.01 (0.00)*	−0.01 (0.00)*
Any children under 6	−0.22 (0.10)*	−0.23 (0.10)*	−0.22 (0.10)*	−0.22 (0.10)*	−0.23 (0.10)*

Note: [a]Robust standard errors; [b]reference group = wife does more than 30 hours; [c]reference group = husband does more than 20 hours; [d]reference group = chores split equally; [e]in units of $10,000; $N = 968$; † $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 3. OLS Regression of Sexual Satisfaction on Housework Measures Reflecting Temporal, Distributional, and Fairness Perspectives

	Model 1: Baseline *B* (SE)[a]	Model 2: Temporal *B* (SE)[a]	Model 3: Distributional *B* (SE)[a]	Model 4: Fairness *B* (SE)[a]	Model 5: Full *B* (SE)[a]
She does 0–10 chore hours[b]		0.13 (0.29)			−0.08 (0.31)
She does 11–20 chore hours[b]		−0.03 (0.29)			−0.18 (0.29)
She does 21–30 chore hours[b]		0.13 (0.32)			0.09 (0.32)
He does 0–10 chore hours[c]		0.28 (0.42)			0.51 (0.45)
He does 11–20 chore hours[c]		0.78 (0.45)†			0.86 (0.45)†
Her chores >his chores[d]			−0.41 (0.20)*		−0.11 (0.22)
His chores >her chores[d]			−0.27 (0.28)		−0.26 (0.30)
Chores unfair to her				−0.87 (0.21)***	−0.89 (0.23)***
Chores unfair to him				−0.32 (0.28)	−0.26 (0.29)
Female	−0.27 (0.17)	−0.23 (0.17)	−0.22 (0.17)	−0.19 (0.16)	−0.15 (0.16)
Age	0.06 (0.06)	0.07 (0.06)	0.06 (0.06)	0.06 (0.06)	0.07 (0.06)
Age^2	−0.00 (0.00)*	−0.00 (0.00)*	−0.00 (0.00)*	−0.00 (0.00)*	−0.00 (0.00)*
Non-white	0.21 (0.37)	0.21 (0.37)	0.24 (0.37)	0.23 (0.36)	0.22 (0.36)
Wife employed	0.02 (0.21)	−0.01 (0.21)	−0.02 (0.21)	0.07 (0.20)	0.09 (0.22)
Husband employed	−0.14 (0.23)	−0.14 (0.23)	−0.12 (0.23)	−0.12 (0.22)	−0.15 (0.23)
Years of education	−0.02 (0.03)	−0.02 (0.03)	−0.02 (0.03)	−0.01 (0.03)	−0.01 (0.03)

(*Continued*)

Table 3. ***continued***

	Model 1: Baseline *B* (SE)[a]	Model 2: Temporal *B* (SE)[a]	Model 3: Distributional *B* (SE)[a]	Model 4: Fairness *B* (SE)[a]	Model 5: Full *B* (SE)[a]
Household income[e]	−0.02 (0.02)	−0.02 (0.02)	−0.02 (0.02)	−0.02 (0.02)	−0.02 (0.01)
Self-rated physical health	0.24 (0.11)*	0.24 (0.11)*	0.24 (0.11)*	0.23 (0.11)*	0.22 (0.11)*
Self-rated mental health	0.06 (0.12)	0.07 (0.12)	0.05 (0.12)	0.05 (0.11)	0.06 (0.11)
Religious participation	0.17 (0.06)**	0.18 (0.06)**	0.18 (0.06)**	0.17 (0.06)**	0.17 (0.06)**
Spouse physical health	0.10 (0.10)	0.10 (0.10)	0.10 (0.10)	0.10 (0.10)	0.10 (0.10)
Spouse mental health	0.93 (0.10)***	0.92 (0.10)***	0.92 (0.10)***	0.86 (0.10)***	0.85 (0.10)***
Marital duration	−0.01 (0.01)	−0.01 (0.01)	−0.01 (0.01)	−0.01 (0.01)	−0.01 (0.01)
Any children under 6	−1.02 (0.35)**	−1.02 (0.36)**	−0.99 (0.36)**	−0.99 (0.36)**	−0.99 (0.36)**
Adjusted R^2	0.26	0.26	0.26	0.28	0.28

Note: [a]Robust standard errors; [b]reference group = wife does more than 30 hours; [c]reference group = husband does more than 20 hours; [d]reference group = chores split equally; [e]in units of $10,000; $N = 968$; † $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Discussion

The effect of housework on married people's sex lives has sparked recent scholarly attention, but studies addressing it draw different conclusions. Our research makes conceptual and empirical contributions to this literature. Its conceptual contribution derives from the distilling of several perspectives found in prior studies—temporal, distributional, and fairness. We examine each perspective's assumptions regarding the process linking housework and sex and its operationalization of housework, enabling greater clarification of convergences and divergences in prior studies' findings. Our study also contributes by expanding the relatively small number of empirical examinations of housework and sex. Among our study's noteworthy features is its inclusion of housework measures reflecting all three perspectives; it is one of the few to do so and the only study to both use a nationally representative American sample and examine a comprehensive set of possible interactions between these measures and with gender. Further, it examines these relationships at a later stage than have most studies, raising the issue of variation in the link between housework and sex as people age and their relationships lengthen.

We find support for two of the three perspectives on housework and sex—distributional and fairness. Our results reveal lower sexual satisfaction among those reporting that wives perform more housework than husbands and that the arrangement is unfair to wives. Our findings on fairness are consistent with those using younger samples and reporting lower sexual frequency and satisfaction among those perceiving less equity in their housework arrangements (Hatfield et al. 1982; Johnson, Galambos, and Anderson 2016; Rao and DeMaris 1995). Our findings relating to the distributional perspective, the one on which prior research is most mixed, suggest a negative effect of less egalitarian relationships—consistent with some research on married couples' sex lives (e.g., Elliott and Umberson 2008), as well as studies of marital quality (e.g., Kamp Dush and Taylor 2012; Rogers and Amato 2000). Taken together, these findings suggest that housework arrangements descriptive of many couples across various ages and marital durations—that is, wives doing a disproportionate share of the housework and feeling that the arrangement is unfair to them—may negatively affect couples' sex lives.

Although we find support for two perspectives, only the perceived unfairness variable remains significant in the model containing all the housework measures, suggesting stronger support for the fairness than distributional perspective. Further, only the respondents' estimates of housework distribution were significant, not the more objective measure calculated using reported hours of wives and husbands. Our conclusion regarding the centrality of perceptions—particularly of fairness—resonates with that of Johnson and colleagues (2016), who conducted one of the few studies of housework and sex to include measures reflecting more than one perspective on the relationship and the only one using panel data. They, too, found that perceived unfairness predicted lower levels of sexual satisfaction. However, their findings contrast with ours in at least two ways: They reveal not only that the negative effect of perceived unfairness

extends to sexual frequency but also that housework's distribution has no effect on either sexual frequency or satisfaction. Their study also differs from ours in the measurement of perceived unfairness. It only examined a measure of male partners' perceptions—and combined those viewing themselves as doing more than their fair share with those doing less than it, preventing an examination of the effects of under- versus over-benefiting.

Our study provides a test of equity theory's predictions regarding under- and over-benefiting by examining perceived unfairness to not only husbands but also wives. We find lower sexual satisfaction among those perceiving their housework arrangements as unfair to wives—a situation both women and men agree is more common than unfairness to husbands. Although our data do not permit conclusive determination of the source of this perceived unfairness, housework arrangements reported in our study and others (e.g., Bianchi et al. 2012) suggest that these reports reflect, in most cases, perceptions that wives under- rather than over-benefit. Further, we find that the association between perceived unfairness and sexual satisfaction does not extend to perceived unfairness to husbands—an observation suggesting that under-benefiting diminishes people's sexual satisfaction, while over-benefiting has no effect. However, our finding that the association between perceived unfairness to wives and sexual satisfaction does not differ for women and men provides a counterinterpretation—that is, that under- or over-benefiting can erode individuals' sex lives. These possibilities could be explored in future studies examining the source of perceived inequities within couples. In sum, our study extends prior research reporting the impact of perceived fairness in early stages of marriage (Carlson et al. 2016; Hatfield et al. 1982; Johnson, Galambos, and Anderson 2016; Rao and DeMaris 1995) by revealing its importance in middle and later stages.

Our finding of more limited support for the distributional than fairness perspective differs from studies reporting strong associations between housework's distribution and sexual frequency and satisfaction (e.g., Kornrich, Brines, and Leupp 2013)—a difference that may reflect our sample's older average age and longer marriages. Supporting this possibility, a study of couples married for five or fewer years finds that "expectations about household tasks" are among issues considered the most problematic (Risch, Riley, and Lawler 2003). The distribution of household labor may be more contentious and have greater effects on sexual relationships earlier in marriage, as they may carry greater symbolic meaning—as harbingers of not only housework arrangements but also time allocations across other life domains. Following greater gender specialization in household labor after marriage and parenthood (Sayer 2005), these roles may become routinized, thus exerting more limited effects on couples' sex lives. Compared with the distributions of household labor, perceived inequities may continue to strongly influence married people's sex lives.

We find evidence that housework is associated with sexual satisfaction but not frequency, a pattern that may reflect our sample's older average age. Our sample reports lower sexual frequency, approximately half that of some other samples; however, their levels of housework, and the gendered distributions of this work, are similar (e.g., Carlson et al. 2016; Gager and Yabiku 2010; Kornrich, Brines,

and Leupp 2013). These patterns raise the possibility that housework is less important to sexual frequency in middle and later life than younger adulthood. Other factors, like health, are likely to be much more important, as suggested by our finding that worse spousal physical health is associated with lower sexual frequency. This observation also may provide an explanation of the lack of support for either hypothesis derived from the temporal perspective. Juxtaposed against the findings of some prior studies (e.g., Gager and Yabiku 2010; Kornrich, Brines, and Leupp 2013), our results suggest that the "time crunch" that can drain husbands', and especially wives', energy and diminish couples' sex lives, as well as the "work hard/play hard" phenomenon of high sexual frequency among those logging more housework hours, may be more applicable to younger than older adults. However, we note that although our sample is older than those used in most prior studies, few MIDUS 2 respondents have reached later life stages in which family and paid work demands have diminished markedly. To clarify these patterns, future work should consider how shifts over the life course in housework investments and their symbolic—and gendered—meaning influence couples' sex lives.

Our study has limitations that point to areas for further research. The housework measures available in MIDUS 2 do not permit examination of arrangements related to specific tasks (e.g., core and non-core tasks). Insight could be gained by examining not only specific housework tasks and childcare but also activities unexamined in the marital sexuality literature but relevant to middle-aged and older adults, including other family carework. Our housework measures are further limited by their reliance on respondent reports of spousal contributions to housework—rather than drawing on reports from both partners. Our sexuality measures also are limited; they reference sexual lives more generally, rather than marital sexual relationships, though our omission of respondents reporting more than one partner in the past year reduces this potential bias. Another data limitation is the absence of a measure of gender ideology, which might either explain or condition the effect of housework on sex; however, we note that others do not find it to be predictive of sexual frequency of satisfaction (Carlson et al. 2016; Gager and Yabiku 2010; Kornrich, Brines, and Leupp 2013). Other limitations are introduced by sample characteristics, including the small number of cohabiting respondents that prevented comparisons with the married. Future research should examine whether our findings extend to cohabiting unions —an increasingly common relationship form (Manning 2013). MIDUS 2 also is limited in its race-ethnic diversity, preventing examinations of this source of possible variation. Another direction for future research centers on change over time in housework and its effect on sex. Our study cannot address this issue, as it uses cross-sectional data. Our findings, however, point to the utility of exploring variation in the relationship between housework and sex across the life course.

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