AMERICAN SOCIOLOGICAL ASSOCIATION

The Cognitive Dimension of Household Labor

American Sociological Review
2019, Vol. 84(4) 609–633

DOI: 10.1177/0003122419859007
journals.sagepub.com/home/asr
SAGE

Allison Daminger[a]

Abstract

Household labor is commonly defined as a set of physical tasks such as cooking, cleaning, and shopping. Sociologists sometimes reference non-physical activities related to "household management," but these are typically mentioned in passing, imprecisely defined, or treated as equivalent to physical tasks. Using 70 in-depth interviews with members of 35 couples, this study argues that such tasks are better understood as examples of a unique dimension of housework: cognitive labor. The data demonstrate that cognitive labor entails anticipating needs, identifying options for filling them, making decisions, and monitoring progress. Because such work is taxing but often invisible to both cognitive laborers and their partners, it is a frequent source of conflict for couples. Cognitive labor is also a gendered phenomenon: women in this study do more cognitive labor overall and more of the anticipation and monitoring work in particular. However, male and female participation in decision-making, arguably the cognitive labor component most closely linked to power and influence, is roughly equal. These findings identify and define an overlooked—yet potentially consequential—source of gender inequality at the household level and suggest a new direction for research on the division of household labor.

Keywords

gender, family, division of household labor, cognitive labor

> "At some point early on, I said [to my wife], 'I think of you as the project manager. You just tell me what to do.' . . . I'd like to be—I'd love to be more involved with it, but logistically right now, it's not gonna happen. . . . So I'm gonna take her lead with a lot of stuff. She thinks about that nitty-gritty, like with everything, so you know, I just trust that she's got it." — Alan,[1] 32, project manager for large healthcare company

> "I guess it's hard to really quantify [our contributions to the household]. I think I just get the sense that maybe my wife is busier doing more, keeping track of more, so I try to pick up different things that I can help out." — Jason, 38, financial services consultant

Each in his own way, Alan and Jason are attempting to define the difference between their own and their wife's role within the household. Both care deeply about their children and spouse, and both contribute to family life: Alan cooks most dinners, and Jason washes all the dishes. Yet in describing his wife as a "project manager" or the person "keeping track of more," each hints at a distinction between the physical work of

[a]Harvard University

Corresponding Author:
Allison Daminger, Department of Sociology, Harvard University, 440 William James Hall, 33 Kirkland Street, Cambridge, MA 02138
Email: Daminger@g.harvard.edu

cooking, cleaning, and paying bills, and the cognitive work of anticipating needs, making decisions, and overseeing family logistics. This study focuses on the latter form of work, which I describe as "cognitive labor."

Despite extensive research on the gendered division of physical labor in the household (for reviews, see Coltrane 2000; Lachance-Grzela and Bouchard 2010), comparably little attention has been paid to defining and measuring the cognitive correlate and examining the ways it may also be gendered. This is problematic because, as the men quoted earlier implicitly acknowledge, cognitive labor is ubiquitous in modern households. No meal is made, no dentist appointment scheduled, and no daycare center selected without some amount of foresight, planning, and deciding. In the popular press, concepts like "mental work" and "mental load" have recently attracted widespread attention (Emma 2017; Owens 2018; Silverman 2018). Yet the sociological literature on household labor lacks a systematic treatment of such activities. Instead, scholars have primarily focused on the physical acts of cooking, shopping, cleaning, and the like (Coltrane 2000). Even research that references "household management" as a distinct category of work has largely refrained from interrogating its precise nature, instead treating "managerial" tasks as parallel to physical activities (e.g., Allen and Hawkins 1999; Hochschild 1989).

Our incomplete understanding of cognitive labor limits our understanding of gender inequality. The two primary dimensions of household labor documented in the sociological literature to date, physical and emotional, are divided in highly gendered ways (Bianchi et al. 2012; DeVault 1999). Cognitive labor, too, likely has a gendered component. Data regarding gender differences in either the amount or kind of cognitive work completed by men and women could reveal an important but understudied dimension of inequality between the mother/wife and father/husband roles, opening new avenues for research in multiple arenas.

In this article, I use data from 70 individual interviews with members of 35 middle- and upper-middle-class couples to answer two key questions: What are the components of cognitive labor? How is cognitive labor distributed between men and women in different-sex relationships? I conclude that cognitive labor is best defined as the work of (1) anticipating needs; (2) identifying options for meeting those needs; (3) deciding among the options; and (4) monitoring the results. I further find that the women in this study carry a heavier cognitive load than their male partners and, in particular, complete a disproportionate amount of anticipation and monitoring work. The work of decision-making, however, is largely collaborative.

These findings suggest new ways of understanding gender inequality in twenty-first-century household life. They indicate that studies of household labor that exclude the cognitive dimension likely underestimate the gender gap in household participation. They reveal an ongoing source of stress, relationship conflict, and distraction from paid work and leisure pursuits. Furthermore, my data highlight heterogeneity within the cognitive dimension: mirroring findings on physical labor, I show that the most female-typed tasks are also among the most abstract and least discretionary. Cognitive tasks more directly linked to power and influence, in contrast, are more often shared between partners.

UNCOVERING COGNITIVE LABOR

Unpaid housework is as much a form of labor as is paid work for an employer. This insight catalyzed a robust sociological literature on household activity. Scholars in this subfield ask how much unpaid labor household members complete, who completes it, how these figures vary temporally and geographically, and what meanings individuals ascribe to such work (e.g., Bianchi et al. 2012; Fuwa 2004; Hochschild 1989; Sayer 2005). Despite innovation over time in the methods used and questions asked, the object of study has remained largely consistent. Both qualitative and quantitative scholars use a definition of housework heavily weighted toward physical activities such as cooking, shopping, cleaning

and laundry, home maintenance, and paying bills (Bianchi et al. 2012; Coltrane 2000; Twiggs, McQuillan, and Ferree 1999).[2] Quantitative scholars typically measure the amount of time individuals spend on housework or the proportion of tasks completed by each spouse (e.g., Berk 1985; Bianchi et al. 2012; Lam, McHale, and Crouter 2012). Qualitative researchers often examine respondents' feelings about performing housework in addition to describing the particular labor patterns they have adopted (e.g., Deutsch 1999; Hochschild 1989; Miller and Carlson 2016).

Critics of this dominant stream of research contend that most studies of household labor ignore the non-physical dimensions of the activities documented. An exclusive focus on concrete, observable tasks—work I refer to as "physical work" or "physical labor"—is, they argue, incomplete, because it overlooks "hidden" or "invisible" forms of labor (Daniels 1987; DeVault 1991; Papanek 1979) that do not match dominant understandings of domestic work.

One hidden dimension is the affective or emotional: literature on "emotion work" asserts that managing feelings and affect is a form of labor distinct from the physical work of completing a task (Hochschild 1979). For instance, whereas traditional studies of household labor would tally the minutes a woman spends chopping and stir-frying vegetables for dinner, a study of emotion work would note her efforts to remain cheerful despite her children's misbehavior or to hide her disappointment when a family member refuses to eat what she has prepared. Emotional labor often occurs alongside physical labor, but it need not: the spouse cooking could easily entrust the work of boosting children's spirits or defusing a tense dinner-table exchange to their partner. In summary, emotional labor constitutes a distinct dimension of work inadequately represented by predominant frameworks for studying domestic labor.

Yet even this two-dimensional conception of labor as both emotional and physical falls short by omitting a class of activities that are primarily cognitive in nature. Building on the dinner preparation example, the work of anticipating the family's need for a meal and generating a plan for fulfilling that need is primarily neither physical nor emotional. Cognitive labor may occur in the same time or space as its physical and emotional counterparts, but it differs in form (chiefly mental rather than physical) and purpose (anticipating a need or making a decision rather than regulating affect and mood). In the following section, I draw on insights from sociology and psychology to make the case for adding the cognitive dimension to our understanding of household labor.

The Case for a Cognitive Dimension

The bulk of household research centers on physical and, to a lesser extent, emotional work, but several qualitative studies reference household activities with a strong mental component. Hochschild (1989:276), for example, defines "management of domestic life" as a discrete category of work that entails "remembering, planning, and scheduling domestic chores and events." Similarly, Coltrane (1996) and Allen and Hawkins (1999) identify a distinction between the cognitive work of *managing* household chores and the physical work of *helping* with those chores. Still other scholars foreground planning work, defined as activity related to ensuring the household runs smoothly and every family member gets where they need to be, when they need to be there (Arendell 2001; Daly 2001; Mederer 1993).

Such references point to the existence of cognitive labor, but they do not theorize it as a distinct dimension of household life with qualities that require unique measurement strategies. Instead, cognitive phenomena are typically referenced as an aside in studies otherwise devoted to physical labor (e.g., Coltrane 1996; Deutsch 1999; Tichenor 2005); treated as a category of work equivalent to physical tasks (e.g., appearing as "household management" alongside "cooking" and "shopping") (Hochschild 1989); or conceptualized narrowly as a phenomenon of

time and schedule management (Arendell 2001; Daly 2001; Hessing 1994).

Despite its marginal position, cognitive labor emerges from these fragments in the qualitative literature as a phenomenon that is both prevalent and gendered. Some scholars report the largest gap between male and female participation lies not in cooking or childcare time but in "management" activity (Deutsch 1999). Even among couples who share housework and childcare equally, women are more likely to feel responsible for task outcomes (Daly 2001; LaRossa 1988), remind their partners to complete certain chores (Ahn, Haines, and Mason 2017), set standards for what constitutes an acceptable meal or a clean-enough house (Mederer 1993), and coordinate and supervise hired help (Gregson and Lowe 1994; Hertz 1986). In the context of long-term planning and decision-making, women devote more mental energy to anticipating the demands of parenthood and reconciling partners' competing career needs (Bass 2015; Wong 2017).

Another cognitive task—making decisions for the family—may be more male-typed. Prior research on different-sex couples suggests men often wield decision-making power: they are more likely than their female partner to overtly exercise their preferences and, implicitly, to determine which issues may be discussed at all (Komter 1989; Miller and Carlson 2016; Tichenor 2005).

Innovative time-use studies that attempt to quantify "invisible" forms of labor or document differences in the nature of men's and women's domestic labor have produced mixed results. One line of research tests the hypotheses that women spend more time multitasking, have more fragmented leisure time, or experience more "time pressure" regardless of actual labor hours (Craig and Brown 2016; Mattingly and Sayer 2006; Sullivan and Gershuny 2013). Although not direct manifestations of cognitive labor, multitasking, time fragmentation, and time pressure may be symptoms of a heavy cognitive labor load. For instance, individuals with the greatest knowledge of household activities may be called on to respond to family members' requests for assistance, even while engaged in a leisure activity. Likewise, they may multitask in an attempt to accomplish a long list of both physical and cognitive tasks (Sullivan and Gershuny 2013).

By some measures, time-use data support the expectation that one hour of a woman's housework time is not precisely equivalent to one hour of a man's time. British women's leisure time is more frequently interrupted by domestic tasks than men's (Sullivan 1997), and U.S. women spend more hours per week multitasking (Offer and Schneider 2011) and are more likely to feel rushed, even compared to men with equivalent leisure time (Mattingly and Sayer 2006).

Yet two studies that explicitly operationalize a "mental" component of housework complicate this narrative. Lee and Waite (2005:332) define mental labor as "thinking about household labor when . . . not performing household tasks" and report that U.S. women spend more time than men on such labor. However, both the gender gap and the absolute workload reported in their study appear negligible: men reported 2.3 hours per week of mental labor, compared to women's 3.1 hours. Adding mental labor time to the overall housework tally decreased men's share of domestic work by only three percentage points.

Offer and Schneider (2011:816) also include a measure of mental labor, defined as "various thoughts related to work and family members," in their study of multitasking among U.S. parents. Although mothers spend more hours multitasking each week, Offer and Schneider (2011:823) find no gender differences in the proportion of all multitasking that involves mental labor (about 8 percent of all multitasking episodes) or in how frequently participants' mental labor is focused on "family matters." They do, however, find that multitasking at home is a more negative experience for mothers than for fathers: women in the study experience more stress and psychological distress in conjunction with multitasking.

It is puzzling that women are found to bear substantially more of a household's managerial load when studied qualitatively, yet both the

overall cognitive burden and the gender gap look insignificant when studied quantitatively. One possible explanation is that qualitative researchers have identified activities that respondents *perceive* as pervasive but are in fact minimal. Another is that the primarily time-based metrics utilized by quantitative researchers are poorly suited for estimating either relative or absolute cognitive labor loads.

Mediating among these conflicting findings is important for our understanding of gender inequality at the household and societal levels. Recent research links a high cognitive burden to significant psychological and behavioral consequences, including reduced capacity to exercise willpower and make long-term decisions (Mullainathan and Shafir 2013; Vohs et al. 2008; Wang et al. 2010). Whereas physical chores are unlikely to intrude on time outside the home, household-related cognitive labor may easily occur in contexts where distractions are unwelcome (Darrah, Freeman, and English-Lueck 2007). Efforts to multitask have been associated with anxiety, stress, and other obstacles to well-being (Wetherell and Carter 2013). Although direct examination of the consequences of a gendered distribution of cognitive labor is beyond the scope of this study, there is reason to believe that health, relationship satisfaction, and career decisions could all be affected.

In summary, activities classifiable as cognitive labor are not wholly absent from the housework literature. However, they have largely been referenced in passing, commingled with or treated as equivalent to physical tasks, or studied in a relatively narrow context (e.g., regarding infant care [Walzer 1998]). In the present study, I combine the relevant ideas scattered throughout the literature under one conceptual umbrella, offering a unified definition of cognitive labor as a unique dimension of domestic work alongside the physical and the emotional. I ask not only *whether* cognitive labor is gendered, but *how*, and I seek an explanation for apparent discrepancies between relevant qualitative and quantitative findings. This research is essential because the limited evidence available suggests cognitive labor is ubiquitous, unequally distributed by gender, and likely to generate negative consequences for the laborer.

DATA AND METHODS

The Sample

Data for this study come from 70 individual interviews with members of 35 middle- and upper-middle-class couples living in the Boston area. All interviews were conducted between June and December 2017. Participants were married,[3] age 25 to 50, held at least a bachelor's degree,[4] and lived with one or more children under age five.

Studying this population offered methodological and theoretical advantages. Parents with young children are among the most time-pressured demographics (Bianchi, Robinson, and Milkie 2006). Compared to nonparents, they have more family members' needs to attend to, and compared to parents of older children, they make more decisions on their children's behalf. I predicted that this group would thus be primed to reflect on planning, logistics, and decision-making practices that might be taken for granted by other demographic groups. By limiting my focus to couples in a similar life stage and family structure, I also mitigated the need to account for interactions between parental status and gender in a small sample.

Educational attainment served as a proxy for social class. I focused on college-educated individuals because they espouse egalitarian gender ideals at particularly high rates (Bolzendahl and Myers 2004; Pedulla and Thébaud 2015). Highly-educated women perform a smaller proportion of physical housework than do comparable women with less education (Davis and Greenstein 2004), and highly-educated men spend significantly more time engaged in childcare than do their less-educated counterparts (Sullivan 2010). This implies that highly-educated, well-resourced couples like those in my sample should represent the "leading edge" of egalitarian labor practices.

However, countervailing forces may complicate the relationships among gender

ideology, economic resources, and cognitive labor allocation. Middle- and upper-middle-class couples' material and social resources could theoretically facilitate enactment of their egalitarian ideals, but the constraints faced by working-class families could promote innovation in the distribution of household responsibilities. Indeed, literature on physical housework calls into question the idea that progressive beliefs lead to progressive practices (Usdansky 2011).

Furthermore, highly-educated women are closely associated with "intensive mothering" (Hays 1996), a set of practices requiring high levels of cognitively-demanding activities like planning and decision-making. Related research associates middle- and upper-middle-class families with a "concerted cultivation" parenting style (Lareau 2003) in which parents actively manage their children's development, again facilitated by extensive cognitive exertion. This highly-educated sample thus serves as a strategic site for exploring the effects of contradictory imperatives, including the desire for an egalitarian division of labor and the norm of an intensive parenting style culturally and socially linked to mothers.

Despite its advantages, my sampling strategy limits my ability to generalize beyond this group. As noted, the relationship between social class and cognitive labor allocation is particularly unclear. In the Discussion section, I offer several hypotheses about how social class—along with other important factors like race and sexuality—might interact with gender to produce distinct cognitive labor patterns.

I recruited study participants via posts on email listservs and Facebook groups for Boston-area parents[5] ($n = 26$ couples); referrals from my extended network ($n = 7$); and referrals from participants ($n = 2$). I advertised the project as a study of "how parents make decisions" to avoid priming participants about gender or the division of household labor and to reduce the likelihood that only parents with strong feelings about such issues would volunteer. Nevertheless, future research should assess the possibility that people who respond to requests like mine differ systematically from other highly-educated, married parents.

Table 1 summarizes the demographic characteristics of the resulting sample. The average couple was in their mid-30s and had been married for 6.4 years. The majority had either one or two children, who were on average 2.7 years old. Ninety-two percent of the women and 70 percent of the men held an advanced degree, and several more were enrolled in a graduate program at the time of the interview. Conditional on paid employment, women reported working a median of 40 hours for pay each week and men a median of 45 hours. Household income ranged from $60,000 to $345,000, with a median of $163,000. Conditional on paid employment, women earned a median of $70,000 and men a median of $105,000. Participants' industries varied widely and included law, medicine, academia, business/consulting, tech, finance, and policy.

Toward the end of the recruitment period, I specifically sought stay-at-home or "lead parent" fathers. My goal was to recruit equal numbers of at-home men and women and test the hypothesis that a higher cognitive labor load among women was more closely associated with employment status than gender. In the final sample, 76 percent of the men and 70 percent of the women worked full-time; 12 percent of the men and 14 percent of the women worked part-time; and 12 percent of men and 16 percent of women were not employed.

No racial or sexual orientation exclusion criteria were advertised, but 53 participants identified as white, and 32 couples consisted of a cisgender man and woman. Nine participants identified as Asian; four as multiracial; and one each as African American and as Hispanic. Two couples consisted of two cisgender women, and one couple consisted of a cisgender woman and a transgender man. Data from these three couples were excluded from analyses of the gendered distribution of work but included in the broader assessment of what constitutes cognitive labor. As a result, my analysis cannot distinguish the effects of gender from those of membership in a different-sex partnership.

Table 1. Demographic Characteristics of the Sample

Panel A. Individual-Level Data	Men	Women
Mean age	36.3	34.8
Race		
White	82%	81%
Asian	9%	11%
Other	9%	8%
Median income[a]	$105,000	$70,000
Median work hours[a]	45	40
Employment status		
Full-time (34+ hrs.)	76%	70%
Part-time	12%	14%
Unemployed	12%	16%
Education level		
Some college	3%	0%
Bachelor's degree	27%	8%
Graduate degree	70%	92%
Panel B. Couple-Level Data		
Mean number of children	1.4	
Mean child's age	2.7	
Mean years married	6.4	
Median income	$163,000	
Relative income		
Wife $5k+ more	24%	
Equal	12%	
Husband $5k+ more	64%	
Relative paid work hours		
Wife 4+ more	30%	
Equal	12%	
Husband 4+ more	58%	

Note: Data come from participants' responses to a series of demographic questions posed at the end of their interview. $N = 70$ (37 women, 33 men).
[a]Conditional on paid employment.

Study Procedures

Once a couple agreed to participate, I scheduled interviews with each partner at their home, workplace, or local café. When possible, I conducted these interviews on the same day. In all cases, I asked respondents to avoid discussing the experience with their partner until after both interviews were complete. Interviews averaged 60 to 80 minutes in length and were recorded with respondents' permission.

Speaking with both partners individually afforded several advantages. First, I received two first-person reports from each couple rather than relying on one person to describe both partners' cognitive activity. Second, this strategy increased the likelihood that respondents would present their honest perspective. Without their partner nearby to overhear, respondents could share critical assessments of their behavior; at the same time, knowing their partner would also speak with me likely reduced the temptation to exaggerate their personal contributions (Kamo 2000). Finally, considerable overlap in the events discussed by each partner enabled me to directly compare their understanding of the same incidents.

Nevertheless, my focus on couples may have inadvertently led to a sample with above-average levels of marital satisfaction or commitment to shared parenting. Whoever learned

of the study first had to convince their partner to participate. Several people—primarily women—withdrew from the enrollment process when they could not convince their partner to participate or preemptively declined to try. Consequently, my results may underestimate the amount of conflict the division of cognitive labor generates in the average household.

Prior to each interview, I asked participants to independently record all household- or child-related decisions they made or were involved in over the course of 24 hours. I encouraged them to define "decision" loosely (i.e., to include planning-related activity, unresolved questions, and ideas they were mulling over).[6] Fifty-seven participants completed written logs. Three women and ten men failed to do so, citing lack of time, uncertainty regarding the task, or forgetfulness. Women's completed logs included 4 to 40 entries, with an average of 15. Men's logs numbered 3 to 20 entries and averaged 10.

Given variation in respondents' compliance with the task, I primarily used the logs to customize each interview. First, I asked respondents to elaborate on a subset of logged activities spanning multiple topics (e.g., food, childcare). I asked what triggered each entry, what alternative options they considered, what role (if any) their spouse played, and how this example compared to typical events in their household. Next, I asked participants a similar set of questions about irregular activities: the last time they bought something for a child, experienced a medical problem, made a home or car repair, took a vacation, established or modified a childcare arrangement, and selected a place to live.

For most of the interview, I asked respondents to describe specific incidents before reflecting on what "typically" happens, thereby minimizing the tendency to report aspirational practices or exceptions to dominant patterns (Small 2017). Only in the final portion of the interview did I invite participants to speak in general terms, via a series of questions regarding their perceptions of the ideal and actual divisions of cognitive labor in their household.

I emphasized detailed, process-oriented questions to reveal cognitive activities respondents took for granted or carried out subconsciously. Where possible, this involved working backward from a decision or outcome. For instance, if a respondent reported a decision to make pasta for dinner, I asked a series of follow-up questions: What gave him this idea? Had he considered other options? Was he looking through the fridge when he made the decision? If not, how did he know what ingredients were on hand? This line of questioning helped reveal the cognitive labor embedded in processes respondents experienced as mundane or primarily physical.

Data Analysis

Data consist of interview transcripts, logs, and ethnographic notes written shortly after each interview. I began the analysis with a round of open coding: I read all transcripts, highlighted recurring themes, and reflected on emergent issues in a series of memos. In the process I generated a list of initial codes I then used in a second review of each transcript, using the NVivo software. Coding proceeded iteratively in several succeeding rounds; each time, I generated new insights that expanded or modified the initial set of codes and highlighted deviant cases.

This process identified nine cognitive labor domains (food, care for children, logistics/scheduling, cleaning/laundry, finances, social relationships, shopping/purchasing, home/car maintenance, and travel/leisure) and four types of cognitive labor (anticipation, identification, decision-making, and monitoring). These categories apply to most couples in the sample and encompass the majority of cognitive activity discussed. Although several domains overlap with activities commonly measured in studies of physical labor (e.g., food, cleaning, home maintenance), I refer throughout this article to the *cognitive* aspects of a given domain.[7] Table 2 provides examples of cognitive labor in each domain category.

I used these categories to assess the amount of cognitive labor—both overall and specific

Table 2. Cognitive Labor Domains

Domain	Cognitive Labor Examples
Food	Deciding what meals to cook Ensuring consistent supply of groceries
Care for children	Selecting a childcare center Setting sleep/meal schedule
Logistics/scheduling	Maintaining family calendar Resolving a schedule conflict
Cleaning/laundry	Deciding when sheets/towels need to be changed Coordinating with hired help
Finances	Ensuring bills are paid on time Deciding how to allocate assets
Social relationships	Selecting gifts for upcoming birthdays Coordinating a playdate
Shopping	Identifying items to be purchased Choosing a brand/model
Home/car maintenance	Recognizing an item in need of repair Finding repair professional (e.g., plumber)
Travel/leisure	Planning vacation itinerary Researching leisure activities for a holiday weekend

types—each respondent completed relative to their partner. Cognitive work does not lend itself to precise quantification; it is diffuse, disjointed, and often invisible even to the doer. Nevertheless, my data enable me to establish the direction of gender disparities within each couple via comparison of partners' written logs, descriptions of specific incidents, and evaluation of what "typically" happens. To make this assessment, I compiled all examples of cognitive labor mentioned in each interview—both labor respondents conducted themselves and second-hand reports of their partner's labor—into a single list of cognitive "episodes." For example, one participant's first few episodes were deciding what to make a child for breakfast, deciding who would walk the dog, and identifying items for the weekly grocery list.

For each couple, I coded all nine topical domains as female-led, male-led, shared, or undetermined. In female- or male-led domains, one partner completed the majority of related cognitive labor or oversaw such work. In the cleaning/laundry domain, for instance, I assessed who was more likely to determine the appropriate time interval between rounds of cleaning, manage the relationship with hired help, remind their partner to complete their portion of the chores, and ensure that necessary cleaning supplies were on hand or added to a shopping list. In domains coded as shared, both members of the couple completed a substantial amount of domain-related cognitive work. For example, if a couple reported that partners were equally likely to initiate a cleaning session or that each partner had sole responsibility for a distinct subset of tasks within the cleaning/laundry domain, I coded them as sharing this domain. In a small number of cases coded as undetermined, couples did not provide enough information about a domain for me to make a definitive assessment.

To code the four cognitive labor components as male-led, female-led, or shared, I assessed the couple's global dynamic. For instance, independent of the topic, which partner was more likely to be aware of upcoming needs and bring them to their partner's attention? Who was more likely to come up with a shortlist of options for the other's consideration, or to notice if an awaited reply never materialized? In most cases, one partner emerged as the "default" laborer. Where

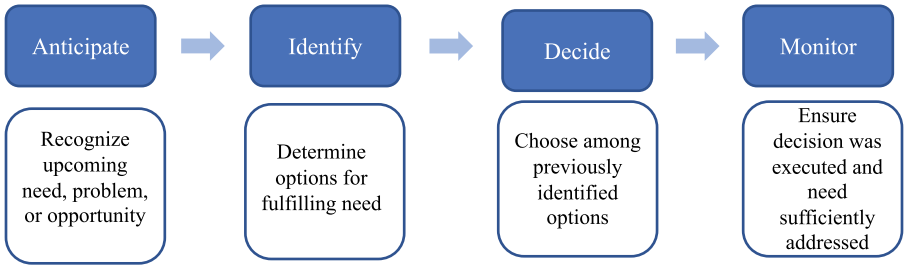

Figure 1. Four Components of Cognitive Labor

there was no clear pattern, I classified the component as shared. For example, if a couple split the nine domains roughly equally and each took full ownership of anticipation work in their designated domains, they would be coded as sharing anticipation.

FINDINGS

Four Components of Cognitive Labor

Cognitive labor is best understood as a sequence of anticipation, identification, decision-making, and monitoring, as depicted in Figure 1. This four-part process may be compressed into seconds or drawn out over several weeks. Although it typically unfolds sequentially, it may be iterative if new developments necessitate revisiting prior work. The issues at stake range from quotidian to life-altering, and the sequence may unfold entirely within the mind or via extensive consultation with others. Despite such variation in form and content, the underlying process remains consistent. Below, I use four examples drawn from interview transcripts to illustrate the surface-level variation and underlying consistency in cognitive labor patterns.

Anticipation work entails recognition of an upcoming need, potential problem, or opportunity. It is future-oriented, although the "future" in question may be the next hour or the next year. Chelsea noticed her toddler waking up progressively earlier each morning and envisioned her hours of rest dwindling. William remembered his family's upcoming trip to Pennsylvania for a wedding and saw an opportunity to plan a mini-vacation. After hearing friends describe the challenges of finding affordable childcare, Desiree initiated a conversation about daycare well before she and her husband would need care for their unborn daughter. Bram noticed he used the last of the milk while preparing his son's morning oatmeal and realized the family would need more soon.

Once the need or opportunity is anticipated, identification work begins: the individual or couple must generate options for meeting the need or taking advantage of the opportunity. This work might entail extensive research, quick mental reflection, or something in between. Chelsea asked her Facebook network for advice and learned that other parents rely on "okay-to-wake" alarm clocks that turn green to signal a child that it is acceptable to get out of bed. She began sifting through product sites to familiarize herself with the range of features and price points available. After hitting on the vacation idea, William identified several friends and relatives who lived near the wedding venue and could act as potential hosts. Once she began contemplating childcare, Desiree embarked on an extensive search for the right daycare center, combing the web and polling friends and colleagues. As he emptied the gallon of milk, Bram considered how long he could feasibly put off a grocery store run given the family's inventory of other staple foods and their schedule for the next few days.

At the third stage, a decision must be made: which of the identified options will the individual or couple pursue? Despite objections from her husband, Chelsea purchased a higher-end okay-to-wake clock she could

program from her phone. William secured an agreement from a cousin to host his family and from his wife to request time off from her employer. After touring several options and deliberating with her husband, Desiree picked a reasonably-priced daycare center recommended by people in her network. Bram noted that the family's supply of eggs was also depleted and resigned himself to a grocery trip, which he determined could be fit in during the hours his son attended preschool.

The fourth component, monitoring, entails following up to ensure the decision is carried out and satisfactorily addresses the anticipated need. For Chelsea, monitoring meant assessing the effect of the new clock on her son's wake-up time: was he staying in his room until an acceptable hour, or would she need to try another strategy? William needed to remind his cousin that their visit was coming up and confirm that his wife had successfully requested time off from work. Desiree's monitoring work was ongoing: Was the daycare center meeting her daughter's needs? Were any drawbacks she learned about cause for concern or inherent to the daycare experience? Finally, Bram had to remember to ask his wife whether she needed anything from the grocery store, to follow up hours later when she had not yet responded to his text, and to travel to the store rather than home after dropping his son off at school.

As the preceding examples indicate, the substance of cognitive labor episodes varies widely, from the routine (ensuring a consistent supply of food staples) to the highly infrequent (selecting a daycare). Traditional studies of household labor would likely overlook some cognitive labor episodes altogether (planning an upcoming vacation). Others would be reduced to a single action (shopping) rather than understood as a process unfolding over time. The four-part sequence of anticipation, identification, decision-making, and monitoring unites these disparate activities to define the cognitive dimension of household labor.

This conceptualization of cognitive labor builds on and diverges from previous research on related concepts. It accounts for the time- and schedule-focused activities emphasized by prior scholars of household management (e.g., Arendell 2001; Daly 2001). However, it also encompasses cognitive activities not dictated by clock or calendar, such as making a grocery list or identifying a product that fulfills a parenting need. Finally, it disentangles the cognitive and affective dimensions of labor, which are often conflated in prior research. "Worrying," for example, is a key component in Walzer's (1998) description of the baby-related mental work new mothers conduct. Worrying is related to anticipation and monitoring, but worrying carries an emotional valence the latter do not: one may anticipate a need for childcare, for example, without attaching feelings of fear, sadness, or guilt to this anticipation.

Invisible and Unacknowledged: Key Features and Consequences of Cognitive Labor

Cognitive labor can be categorized as one of four activities (anticipation, identification, decision-making, or monitoring), but several general characteristics unite the cognitive dimension and hint at its broader consequences for individuals and couples. First, cognitive labor is often invisible to people other than the laborer, who see the physical outcome but not the mental work that enabled it. When Chelsea presented her husband with the clock she wanted to purchase, he could not see, and perhaps did not imagine, the time she spent researching alternative options and weighing their merits. Similarly, William's wife Stacey was largely unaware of the brainstorming her husband did to identify relatives they could stay with, determine the phrasing and timing of his requests, and evaluate the relatives' replies. She saw the outcomes of William's process (making a call, sending an email, or otherwise scheduling the getaway) but not the cognitive work that preceded the act of scheduling.

Invisibility can generate conflict within a couple. Cognitive laborers may believe their efforts are unappreciated, while their partners wonder why they complain about being busy or stressed. This was a problem for Desiree

and Danny: "Sometimes when we're arguing, I have to remind Danny that even though the stuff I'm doing is easy—I'm not out there mowing the grass—I'm actually doing a lot of stuff." Asked to clarify her definition of "stuff," Desiree reported:

> Making sure the baby has all his stuff, all his diapers and stuff like that. Or paying the bills. Organizing stuff for the house. Making sure appointments . . . like keeping track of everything pretty much. . . . Danny's caught up in the fact that he's out there fixing the fence, and it's 90 degrees, and he's the only one out there, but it's like, I'm not sitting in here just staring at the wall, I'm doing stuff too.

The low visibility of Desiree's cognitive tasks generated conflict over who owed gratitude to whom, and for what.

Some couples used creative strategies to head off disagreement. Chelsea, a product manager, struggled to make her software engineer husband Phil empathize with her heavy cognitive load until she found the perfect metaphor:

> We call it a "background job" in my head; there's just always kind of things happening there, that I can do at the same time that I'm doing other things. . . . [A background job] is a way that some software handles things that need to be ongoing. . . . It is me using work terms to say, "This is how my brain is working." . . . He's like "Oh, I get it now."

Once his wife's cognitive activity was described in familiar terms, Phil understood that even when she appeared idle, Chelsea's mind was scanning the horizon for upcoming needs and strategizing ways to meet them.

A second quality of cognitive work is that even the laborer may overlook it, because it does not seem like work, is deeply engrained in habits and modes of thought, or is a secondary activity carried out in parallel with other tasks.[8] As a consequence, it may be difficult to give *oneself* full credit for contributing to the household, to pinpoint the source of stress or time pressure, or to advocate for a more equitable division of labor. Kristen summarized this dilemma: "I started doing [the pre-interview log] and was like, is this a decision or a daily task? . . . There are things I know that I've thought about that I didn't log, and things that I logged that I don't know qualify." There is a long tradition of classifying cooking, cleaning, and shopping tasks as (unpaid) labor, but cognitive tasks fell into a gray area for many participants, who were unsure whether they constituted "work."

Maintaining a consistent supply of toiletries, paper goods, and children's clothing was a particularly under-the-radar task. Some respondents, like Holly, seemed baffled by my questions about how they tracked household inventory: "Umm, it's usually in my head. I generally have a good idea of how much we have of stuff." The idea that constantly monitoring the supply of toothpaste and toilet paper was work for which Holly was responsible had not occurred to her. Likewise, Rebecca seemed to find my questions about the last item of clothing she purchased for her twins somewhat silly: "There were some cute little clothes I wanted to get them, so . . . I made the decision, and I got it." Only when pressed for details did she hint at the cognitive work involved in this purchase: identifying a children's clothing store near a stop on the family road trip, making the time to visit, accessing a mental image of the clothing the children already owned to determine what they needed, and anticipating the size they would grow into over the coming year. Without precise language to describe such activities, and with so much of this work happening subconsciously, neither doer nor observer can clearly see the extent of the cognitive work accomplished, let alone assess its impact on other aspects of their lives.

A third quality makes cognitive contributions difficult to be credited as such, or to register in a couple's economy of gratitude (Hochschild 1989):[9] cognitive labor is often diffuse or abstract. Some cognitive activities (e.g., "research hotel options") can be easily

noted on a to-do list and confined to a period of minutes or hours, but many others—monitoring and anticipation work in particular—defy such neat delineation.

Anticipation work is particularly difficult to pin down, because by definition it involves noticing or remembering something not currently on one's radar. Its amorphous nature makes it an especially disruptive and distracting form of labor. Respondents described the frequent experience of driving somewhere, sitting down to work, or otherwise going about daily life when they suddenly recalled an upcoming birthday for which they had not yet bought a card, a school vacation for which they had not yet secured supplemental childcare, or an ingredient that did not make it onto the grocery list but was an integral part of the planned dinner. As Carla explained, "Sometimes, it pops into my head, like, god, I should really get extra stuff for [our daughter]. I kind of wish that didn't pop into my head during the day . . . that I could actually just be working when I'm working." Cognitive labor's resistance to spatial or temporal boundaries makes it especially likely to extend beyond the domestic sphere and interrupt paid work or leisure time.

Another consequence of cognitive labor's abstract nature is that it prevents the laborer from experiencing the satisfaction of accomplishment that follows the completion of many physical tasks. With no real beginning or end, cognitive work can feel like a conveyor belt without an "off" button. As Douglas explained: "I joke that when we put [our son] to bed at 6:30, I forget that I have a kid because he sleeps so well and everything, I just forget about it. I think that for a variety of reasons [my wife] is unable to turn that off." With little opportunity for true respite, cognitive laborers often experience daily life as a chaotic churn but lack the language to explain why.

The combination of diffuseness, invisibility to self, and invisibility to others sets cognitive labor apart from its physical counterpart and points to distinctive consequences. This dimension of labor is difficult to include on the household "balance sheet," setting couples up for disagreement over who is doing their part and preventing the laborer from pinpointing an ongoing source of stress. Cognitive tasks are also uniquely flexible, possible to accomplish in a range of times and places. This flexibility may be advantageous in some circumstances, but it also carries the potential to interfere with paid work and leisure time.

Yet just as scholars of physical labor point out that tasks differ in flexibility, frequency, and onerousness (Bianchi et al. 2000; Lachance-Grzela and Bouchard 2010), the four components of cognitive labor vary in invisibility, time-boundedness, and opportunity to exercise influence (see Table 3). Anticipation work lies at one extreme: it is work that cannot be confined to a to-do list, because it is the work of creating the to-do list itself. It occurs almost entirely within the mind, is difficult to schedule, and is associated with relatively little power: putting an item on the household agenda increases the odds an issue will be addressed, but this is distinct from determining *how* it should be addressed.

Decision-making, by contrast, is often carried out via conversation and is thus more visible to both partners. Many decisions are spontaneous, but those with higher stakes are typically deliberated over a longer period and can be postponed to a convenient time. Decision-making is the type of cognitive labor most closely associated with power and influence: deciding, or participating in the decision-making process, is the best way to advocate for one's preferred outcome.

Critics of this characterization might argue that anticipation is a form of agenda-setting, and thus a source of power in its own right. Similarly, monitoring could be framed as an opportunity to apply one's own standard for "done" or "good enough." Indeed, several participants expressed ambivalence over their heavy cognitive load, seeing it as simultaneously a burden and a source of control. Kendra wondered aloud, "Do I want [my husband] to do more, or do I feel like our actual complementary styles work just fine? Do I feel like I want [him] to do more in [his] own way,

Table 3. Characteristics of Cognitive Labor Components

	Time-Boundedness	Invisibility	Opportunity to Exercise Influence
Anticipation	low	high	low
Identification	medium	low	medium
Decision-making	medium	low	high
Monitoring	low	high	low

or do more in my way?" In her role as the family's primary anticipator and monitor, Kendra ensured that the issues she deemed important were dealt with in what she considered an appropriate timeframe. However, the concerns she brought up with her husband Troy were not all, or even mostly, personal priorities. Both parents surely cared about their children's health, but it was Kendra who was most likely to notice an illness and initiate a discussion with Troy about whether to take the child to a doctor. Similarly, financial solvency likely matters to both Kendra and Troy, but Kendra was the one to bring up the possibility of mortgage refinancing and draw the couple's attention to a problem with their insurance company.

By taking a backseat in such matters, Troy seemed to be exercising a subtle form of power: the power *not* to anticipate or monitor, knowing that someone else was looking out for his family's best interests and would alert him to any impending problems. Still, future research should seek to mediate between these conflicting interpretations of the data, clarifying the relationship between domestic power and each form of cognitive labor.

Cognitive Labor as a Gendered Phenomenon

Just as gender strongly influences the distribution of physical labor (Bianchi et al. 2012; Tai and Treas 2013), I find gender to be a major factor in the distribution of cognitive labor. Among the 32 cisgender, different-sex couples, women carried a heavier overall cognitive load, although certain household domains were more gendered than others. Women's dominance was particularly pronounced in the anticipation and monitoring components. Decision-making, by contrast, was a more collaborative activity, and identification work was typically split between partners. In the following sections, I describe gender differences in the topical or domain focus of individuals' labor (e.g., food, childcare), in the overall amount of cognitive labor completed, and in the cognitive components conducted (e.g., anticipation, identification).

Differences in domain focus. As Table 4 shows, six of nine topical domains were female-led in the majority of couples. No domain was male-led in the majority of couples, but finances came closest, at 48 percent. Maintenance and travel/leisure were primarily shared (45 percent) and female-led (41 percent), respectively.

To some extent, the gendering of cognitive domains mirrors findings on the gendering of physical housework: women led childcare-related cognitive labor in 23 of 32 couples and cleaning-related cognitive labor in 19. Two of the more female-led domains, however, are unlikely to appear at all in traditional studies of household labor: logistics and scheduling (female-led in 24 couples) and social relationships (female-led in 17 couples).

In most families, both partners had access to a shared calendar; however, women updated it more frequently, more often issued reminders about upcoming events, and were more likely to ensure compatibility among individual family members' schedules. As Phil reported, "[My wife] owns the social calendar. I make requests or whatever, but . . . she owns calendaring." He is hesitant to schedule

Table 4. Couples' Division of Cognitive Labor

Domain	Percent Female-Led	Percent Male-Led	Percent Shared
Logistics/scheduling	75	9	16
Care for children	72	6	22
Social relationships	70	4	26
Cleaning/laundry	68	11	21
Shopping	63	9	28
Food	53	22	25
Travel/leisure	41	22	37
Finances	28	48	24
Home/car maintenance	22	33	45

Note: Numbers refer to the percentage of cisgender, different-sex couples ($n = 32$) in which the cognitive elements of a domain were classified as female-led, male-led, or shared.

things on his own, "because if I just made [an appointment], she'd be like, 'Uh, that was the one morning we had to "something"—to sleep in.'" Danny attributed his wife's greater control over the family calendar to his own incompetence: "I'm awful. I have a calendar for big events, but for things—like, we knew we were coming here [for the interview] and I just kept reminding myself—but my wife, she is the glue."

Likewise, women were especially likely to identify appropriate gifts for friends and family, keep track of birthdays, and coordinate social gatherings. This pattern held even where it seemed inconvenient or inefficient. Because of his work schedule, for instance, Antoni routinely drives his daughter to and from daycare and interacts frequently with classmates' parents: "I would chat with other parents and say, 'Hey, what do you think about, if we want to do a playdate?' The planning then is handled by [my wife] Siobhan. If I start the conversation, she will email the parent and plan a playdate or something." Similarly, both Joanna and Isaac agreed that Joanna maintains the family's social connections. As she elaborated on the arrangement, however, Joanna acknowledged an oddity: "It's funny because we have a big group of friends, mostly his friends. People he knew in college or friends of college friends. They are his friends, but I've become part of the group, and a lot of it is the men who are the college friends but the women who do the social organizing."

The most male-typed domain was finance, which was male-led in 14 couples. Men were more likely to track expenses, monitor investment portfolios, and determine how much the family could afford to pay for a home or for childcare. Indeed, in several couples finance was the *only* domain the male partner dominated cognitively. Lisa and Steve typified this group. When a financial issue arises, Lisa noted with a chuckle, "Steve will often say to me, 'Hey, do you want to learn about this and such, or do you want me to explain what's going on with this?' [I answer,] 'No, no, no, I haven't got the mental space for that—you just figure it out. I trust you to do that which needs to be done.'"

Not all domains were clearly gender-typed. Within each domain, however, certain types of work tended to be more gendered than others. Women were more likely to handle cognitive work related to shopping for clothes and routine household supplies, for instance, whereas men typically handled cognitive work related to bigger or more heavily-researched purchases (e.g., a new appliance). In the maintenance category, men more often handled car-related cognitive labor, while women played a larger role in home interior issues.

Differences in overall load. I calculated total cognitive load as the number of substantive domains an individual leads. This is an admittedly imperfect strategy that obscures variation in the amount of time,

energy, and stress associated with each domain. Overall, I hypothesize that it leads me to underestimate the gap between men's and women's cognitive contributions. For instance, childcare, a highly female-typed domain, is among those we might expect to require the greatest amount of cognitive labor. Indeed, many more of the incidents recorded on participants' logs centered on childcare than on maintenance or finances, two of the more male-typed domains in the sample. Unfortunately, my data only allow for speculation along these lines.

With this caveat in mind, women carried a heavier cognitive load in 26 of 32 couples. They led an average of 4.6 out of nine domains, whereas men averaged 1.6, and 2.2 were split or shared in some fashion.[10] In the most extremely female-led couple, Nina, a doctoral candidate, led eight domains and shared the ninth (finances) with her husband Julian, a resident physician. In the most extremely male-led couple, Johannes, a stay-at-home dad, led six domains, while his wife Rebecca, a hospital physician, led one (cleaning), and the couple shared the remaining two (social relationships and shopping). On the more collaborative end of the spectrum, Annette and Craig shared six domains. Of the remaining three, Craig, a software engineer, led two (shopping and maintenance), while Annette, a physician-scientist, led one (cleaning). In the absence of a clear cognitive leader for most domains, this couple relied on an unusual number of formal systems—including scheduled weekly planning meetings and a comprehensive food inventory spreadsheet—to keep both partners on the same page.

Men carried a heavier cognitive load in four couples, and partners carried an equal load in two. Although limited sample size makes it difficult to identify demographic predictors of a nontraditional allocation of cognitive labor, a few commonalities stand out. Half the men in the nontraditional group were stay-at-home dads. One interpretation of this finding is that the partner with more time available or lower earnings will do more cognitive labor. However, among the nine women who reported working at least four hours more per week than their husband, five also did more cognitive labor. Among the nine women who out-earned their husbands by at least $5,000, four maintained more of the cognitive labor load. Income, hours worked, and cognitive labor may be correlated, but gender differences are apparent net of these characteristics.

A second notable feature of the gender-atypical group was that half the men were born outside the United States (in Europe or Asia). Finally, three of the six women were physicians—and, notably, the only female physicians in the sample. None of these factors should be interpreted as a definitive predictor of a couple's division of cognitive labor. Nevertheless, they suggest hypotheses for future research on the conditions that encourage egalitarian or male-led distributions.

Differences in cognitive activities performed. In addition to variation in the gendered division of substantive domains, women led the four components of cognitive labor at different rates. Anticipation and monitoring activities were female-led by a wide margin, whereas decision-making and, to a lesser extent, identification were less gendered activities. Men did not opt out of cognitive labor altogether; rather, they participated in ways that tended to maximize the ratio of power exerted to labor completed. Figure 2 illustrates the distribution of cognitive leadership across all four cognitive components.

Anticipation work was female-led in 26 couples. Even in areas outside their expertise, women were often the first to notice a problem or initiate a discussion. For example, female respondents were markedly less likely to complete physical maintenance work but were often the ones to identify objects needing repair. Typically, they reminded their partner about the problem until he hired a contractor, purchased the necessary supplies, or otherwise worked toward a fix. Chelsea and Phil epitomized this dynamic:

> I had read this news article, how to get your house ready for winter, and the biggest thing you've gotta do is clean your gutters. We moved into this house a couple years ago,

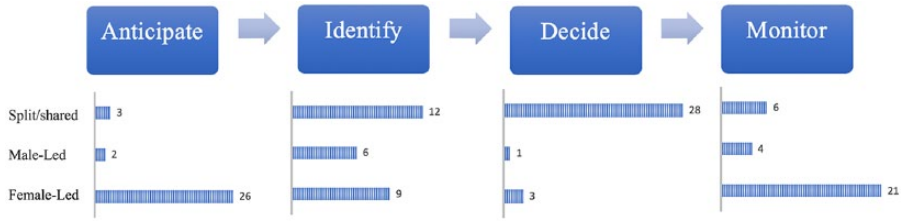

Figure 2. Distribution of Cognitive Leadership
Note: Numbers indicate the count of couples falling into each category and do not sum to 32 due to a small number of unclassified cells.

> and I don't think we've ever done any gutter cleaning. But, lately I noticed one of the gutters was clogged. So I think, so I've sort of been asking [my husband] to do the cleaning. . . . We were going back and forth on how to deal with that. (Chelsea)

Although both partners assumed the act of physically removing leaves from the gutter would be Phil's responsibility, it was Chelsea who anticipated the need to winterize their home and brought it to her husband's attention, as she did most maintenance needs.

Troy acknowledged a similar pattern while describing the process of furnishing and decorating his family's new home. How, I asked him, would he and his wife Kendra figure out what to put where? "That's tricky. I think . . . I guess I have a habit of reacting to . . . like, I'll let her take the first step and then I'll react to it. . . . I think sometimes she thinks that's me not necessarily offering an opinion enough." Troy, an architect, held strong opinions about design, but despite this expertise Kendra was more likely to raise issues for the couple to discuss collaboratively. The pattern of Kendra as initiator and Troy as reactor was a global dynamic in their relationship, Troy reported: "More often than not, she probably takes the first stab at something." His role was "trying to be supportive to her and then trying to sort of use her cues to get on the same page."

These two couples were not alone in pushing the bulk of anticipation work onto the woman's plate. This dynamic frequently arose in meal planning, where many women anticipated the need for a grocery trip and solicited input from their husband while preparing a shopping list: "I'll tell him, like, think of something you want to cook, and he'll text me later, after he thinks" (Holly). It arose in shopping: "With a lot of [purchases] she'll either just find it and put it in the [online shopping] cart or send me a link, or [my wife] will say, 'Hey, we need socks . . . go find this'" (Jay). Likewise, it arose in planning for leisure time and children's enrichment: "She does come up with the ideas [for weekend activities] more often than I do. I know it's probably because she's here and also probably because she is just constantly thinking about planning. . . . She's always thinking about what's going to happen" (Steve).

Identification work was primarily split by domain (e.g., one partner did shopping-related identification, the other handled travel-related identification) or assigned to the partner with "research" skills deemed superior. Twelve couples shared identification work; nine were female-led; and six were male-led. Joanna and Isaac fell into the latter category, in part because both partners agreed that Isaac was "much better at doing the internet research [needed] to make these kinds of purchasing decisions."

In another couple, Jackie acted as the designated identification expert. When I asked her husband Matthew to compare his research process to hers, he told me, "She'll go to maybe four or five consumer sites and try to get reviews on everything, whereas I'll look at one or two actual product sites and just read the reviews on the site itself, and then make a choice based on that." Matthew was trying his best to "come up to her level . . . rather than force Jackie to come down to my low standards." In another female-led couple, Jenna

reported that "even though [my husband] is involved in almost everything, it's me doing a lot of the legwork." Prompted to give an example, Jenna said, "So we'll talk about a plane ticket and what we want to do. And then it's me who's actually doing the research, waiting a day, doing the research, waiting a day, tracking it on Google Flights, whatever."

In just under half of the couples, identification was the primary responsibility of neither person; instead, both partners took the lead in a few domains. The division of this labor was especially clear-cut for Sharon and Douglas:

> I research all of the purchases, almost exclusively. Douglas researches travel and activities. It is pretty much very cleanly divided down the line. He finds things to do and, when we are going on a trip somewhere, obsessively [searches] Priceline, airline tickets, rental car, all of that stuff. Anytime we need something for the house, I do the research on that.

More commonly, research responsibilities were implied rather than strictly delineated. Liz, like many female respondents, does the bulk of the identification work in the childcare domain. When her husband, Nathan, has a parenting question, "I kind of give him the expert info, and then we talk it out and [decide], 'What are we comfortable with?'" Nathan takes on identification work related to home improvement projects and long-term investments. When they ran into problems with their tap water, for example, Nathan researched the pros and cons of purchasing a refillable water dispenser.

By contrast, the decision-making component of cognitive labor was overwhelmingly collaborative: 28 couples primarily shared decision-making work. Both men and women insisted that they consulted their partner all the time, maybe too often, and rarely made decisions unilaterally. Indeed, the data show that both partners typically signed off on any decision involving a significant outlay of resources or a deviation from routine. Kara, for example, noted that any question about a problem with their 1-year-old required both her and her husband's perspective. She drew a marked contrast between her own and others' relationship in this regard:

> There are some couples where there's like, wife domains and husband domains, and things that [fall within] the "wife" domain, she'll just do. My sister and her husband, I think, are like this. When it came to planning my nephew's first birthday, she did everything, and I don't even think she told her husband what the plan was; he was happy either way. I think even though I have more time to do that type of thing, [my husband] Joel likes to be involved and give his opinion.

As she described Joel's participation in their own son's birthday party preparations, however, it became clear that he got involved only after Kara had completed significant anticipation and identification work: determining what food to have, where to get a cake, what decorations to purchase, and so on. "Collaboration" consisted of Kara sharing her tentative plan with Joel and securing his agreement: "I wanted to make sure we talked about it, so that it was, 'I think we should get bagels.' 'Great! Bagels sound good.'"

Multiple couples exhibited a pattern of gender imbalance in anticipation and (less frequently) identification work followed by collaboration at the decision-making stage. Although Jenna and Peter mutually agreed to enroll their daughter in a music class, it was Jenna who found the class and alerted Peter. Similarly, Desiree and Danny discussed the merits of buying a second stroller before agreeing together to purchase one. However, it was Desiree who suggested the need for a more compact option, identified a good model, and noted an upcoming sale.

A running joke between Stacey and her husband encapsulates this sample-wide pattern: "After we were engaged, [my husband] William announced that he was the decider in our relationship. . . . And he said, 'Every week you will put your questions into [a] jar and on Saturday I will sit down and review them and give you my answers, my

decisions.'" Although she laughed as she recounted the story, it held a grain of truth. Stacey handled the bulk of anticipation and identification work—that is, she generated the questions that ended up in the "jar." The joke, however, was that William unilaterally answered those questions. Speaking more seriously, both Stacey and William acknowledged decision-making work as shared.

The pattern of female anticipation and identification followed by joint decision-making was particularly apparent in the realm of formal childcare. Many men spoke knowledgeably about the couple's search for the right daycare and offered a clear rationale for their choice. Only when I pressed for details did I learn that in nearly all cases, the female partner initiated the search and identified a shortlist of options before inviting her husband to tour the finalist centers and help select one. In this fashion, men retained some of the power associated with decision-making and received "credit" for participating in cognitive activity without putting in the preparatory labor required to reach the decision stage.

Finally, monitoring, like anticipation work, was often female-led: 21 women acted as primary monitors. Returning to the gutter-cleaning advocated by Chelsea, not only did she anticipate the need to winterize their home and identify gutter-cleaning as an important task, she also monitored the outcome of her husband's physical labor to determine whether further action was necessary:

> Thursday night after dark, [my husband] Phil had gotten the stepstool out and basically reached out and gotten the one clog out of this gutter. And then Friday—when he told me, he said, "I cleaned out the gutters, we're all good now." . . . So then Friday, I'm looking out the window . . . and like, from where I can see, that gutter is like, still got a bunch of leaves in it. So I'm like, "Mmm . . . what, you know, I thought you cleaned it, look, it's full of leaves." He's like, "Those leaves don't matter." Then we had this long discussion about, to what extent do a few leaves in the gutter matter?

Chelsea's concern suggested that tasking Phil with the physical labor of removing leaves did little to reduce her own cognitive burden: only when she determined the anticipated need (i.e., to winterize their home) had been sufficiently fulfilled could she move on.

Like Chelsea, Nina found that the act of delegating a task to her husband Julian did not preclude her from monitoring the outcome. Several weeks before our interview, she asked Julian to schedule a flu shot for their 2-year-old. When she checked in a few days later, the task remained undone: "He couldn't, like he literally, physically couldn't find the 15 minutes in his work day to fit it in. . . . Maybe if I had left him with that task for a couple weeks he might've found the time. But I want him to get it done and get [our daughter] her flu shot." Similarly, Heather often "tasks" her husband Jeremy with specific to-dos: "I'll say like, 'I've tasked you,' or 'you've been tasked.' I'll text him, like, 'Look at your email, you've been tasked.' He'll just do it." Once she sent off the email, I asked, was she able to stop thinking about the delegated task? "Not really," Heather admitted, "until he'll email me and say like, 'Okay, this is done.'. . . So I have to follow up with him and say, 'Did that actually get done? If not, can you do it tomorrow?' So it's not really off my plate mentally until I know that it's done."

Cognitive labor was thus both quantitatively and qualitatively gendered. Women in this study did more cognitive labor overall, focused on different topical domains, and were disproportionately involved in the anticipation and monitoring components. Men's involvement in decision-making and identification work was comparable to women's, with the former primarily a collaborative effort and the latter split by domain.

DISCUSSION AND CONCLUSIONS

The present study is among the first to systematically examine a phenomenon previously confined to the margins of literature on household life: cognitive labor. I analyze 70

in-depth interviews and 57 written logs to define cognitive labor as a four-part phenomenon that consists of anticipating needs, identifying options for filling them, deciding among these options, and monitoring the results. I show that this work is highly gendered, with women completing more cognitive labor overall and more of the anticipation and monitoring components in particular.

These findings have important implications for the study of household labor and gender inequality more broadly. In particular, they underscore the need to include the cognitive dimension in future research on the allocation of domestic work. Failure to do so could systematically bias results: if, as I find here, women routinely complete more cognitive labor than do their male partners, current research may underestimate the gap between men's and women's household labor burden.

The omission of cognitive labor may also obscure key pathways linking women's domestic responsibilities to their health status, relationship satisfaction, and employment outcomes. Compared to men, women report higher rates of stress, anxiety, and feelings of time scarcity (Craig and Brown 2016; McLean et al. 2011; Offer and Schneider 2011). Although highly-educated women perform fewer hours of physical housework than do comparable less-educated women (Bianchi et al. 2000), conflicts between work and family duties are a key factor prompting many women to "opt out" of the workforce (Blair-Loy 2003; Stone 2007). My data cannot definitively establish connections between the allocation of cognitive labor and gender disparities in economic or health outcomes, but they indicate a need to build cognitive labor into studies of household life and work-family conflict.

How best to study the cognitive dimension of household labor remains an open question. My findings strongly resonate with prior qualitative research showing that women hold greater responsibility for household outcomes, perform more managerial work, and take a leadership role in cultivating their children's development (Coltrane 1996; Hays 1996; Hochschild 1989). Yet time-use data indicate parity in men's and women's combined paid and unpaid labor hours (Bittman and Wajcman 2000; Robinson and Godbey 1997), and quantitative studies that explicitly measure non-physical aspects of housework report these activities to be minimal and only slightly gendered (Lee and Waite 2005; Offer and Schneider 2011).

My data suggest an explanation for these apparent contradictions: common methods for studying physical housework are ill-suited to the study of cognitive labor. Time-use data, for instance, consists of participants' retroactive or real-time accounts of their activities. Yet cognitive labor is often a secondary or even tertiary activity carried out alongside physical actions. Some time-use studies allow participants to record both primary and secondary activities, but this largely produces accounts of physical multitasking (Craig 2006). Participants report cooking while keeping an eye on their children, or folding laundry while they wait for water to boil or a roast to cook. There is also evidence of systematic variation in the perceived primacy of certain activities: when participants multitask housework and childcare, for instance, childcare is disproportionately reported as secondary (Craig 2006).

Cognitive labor's invisibility, even to the person conducting it, suggests it is unlikely to be reported as either a primary *or* secondary activity. Its diffuseness also makes it particularly difficult to tally in units of time. While 20 minutes spent browsing the web for flight options (identification work) or conversing with a spouse about which apartment to rent (decision work) might be recorded in a time diary, thoughts about what to cook for dinner (anticipation work) or a sudden realization that the babysitter never confirmed Friday night (monitoring work) would almost certainly not be tallied.

Notably, the latter activities involve the cognitive components I find to be especially female-typed. Much as women disproportionately perform the most frequent, inflexible, and onerous physical tasks, the most strongly female-typed cognitive components (anticipation and monitoring) are also the most

invisible, abstract, and distant from power. The disproportionate absence of anticipation and monitoring activity from couples' conscious awareness—and thus from their time-use data—might explain findings of a relatively small gender gap in reported time spent thinking about the household (Lee and Waite 2005). More broadly, these findings suggest that time is not the only or best measure of gender inequality in household labor. Even a perfect measure of the temporal burden of cognitive labor would obscure variation in such labor's costs (e.g., distraction) and consequences (e.g., the ability to exercise authority).

The process-oriented interview technique used in this study has significant advantages over more common methods used to study physical labor. Nevertheless, it has several limitations. It is time-intensive and requires extensive customization, rendering it unsuitable for large-sample studies. It also relies on participants' memories, which may be inaccurate or incomplete, and assumes that respondents accurately report their own and their partners' contributions rather than stretching the truth to support their preferred narrative. These limitations are endemic to studies of household labor (Achen and Stafford 2005). A more unique limitation is that absent a common unit of measurement (e.g., time), it is difficult to convert participants' reports into a standardized measure of cognitive labor load. By systematically comparing partners' accounts, I was able to confidently report on the direction and approximate magnitude of cognitive inequalities within a household. However, I could not compare absolute labor loads across households or precisely estimate the total cognitive burden each respondent carried. Future research should aim to improve upon my methods, finding ways to operationalize cognitive labor that do not hinge on participants' retroactive or real-time accounts of their time use. Techniques developed by behavioral scientists to measure the effects of a heavy "mental load" on cognitive functioning (Mani et al. 2013) present one potential model, although to my knowledge these measurement strategies have yet to be used in non-experimental research.

In summary, the present study establishes cognitive labor as a pervasive and highly gendered dimension of household life that must be factored into future sociological research if we aim to understand the precise nature and magnitude of gender inequality in the household. It suggests that inequalities on this dimension may be associated with relationship conflict, diminished individual well-being, and even workplace outcomes, although these hypothesized relationships must be subject to further testing. Finally, it points to problems with the current norm of quantifying household labor burdens in hours and minutes, a strategy poorly suited for detecting cognitive labor differences.

Building on these important insights, several additional questions should be taken up by scholars of the household. First, to what extent do cognitive labor patterns observed here generalize to a broader population? On one hand, we might expect these respondents (i.e., college-educated men and women living in a Northeast metropolitan area) to be among the most progressive in their beliefs and behaviors regarding gender (Bolzendahl and Myers 2004). On the other hand, research on physical housework suggests middle-class families are not always more egalitarian in practice than their working-class counterparts, despite espousing more egalitarian beliefs (Hall and MacDermid 2009; Miller and Carlson 2016). Absent the financial resources necessary to support a gender-traditional division of labor, working-class families may adopt nontraditional practices for practical reasons, as research on alternate-shift couples has shown (Deutsch and Saxon 1998). Thus, while there is reason to believe the relationship between gender and cognitive labor will differ by class, the nature of that difference remains unknown.

Similarly, there are too few non-white respondents and same-sex couples in the sample to draw conclusions regarding the effects of race or sexual orientation on cognitive labor allocation patterns. Research on the division of physical labor indicates that same-sex couples tend to allocate labor more equally than do their peers, but factors such as

gender presentation and parental status drive subtle imbalances in the amount and kind of labor each partner completes (Doan and Quadlin 2018; Goldberg, Smith, and Perry-Jenkins 2012; Moore 2008). Physical labor allocation patterns are also racially patterned to some extent, with African American couples on the whole achieving a more egalitarian division of housework than do white couples (Kamo and Cohen 1998).

Comparative research is needed to determine to what extent the female-typing of cognitive labor is a middle-class, white, different-sex couple phenomenon, and to what extent it is a more fundamental component of gender inequality in the twenty-first century. Research on other dimensions of labor may offer important clues, but cognitive labor's unique qualities, including the fact that it is not tied to physical presence in the home and is often invisible, open up the possibility of alternative relationships.

A second question is: what forces shape a couple's division of cognitive labor? The relative homogeneity of my sample—women completed more cognitive labor in 81 percent of the different-sex couples—makes it difficult to attribute variation to any specific cause. Still, the finding that six couples shared cognitive labor equally or were male-led suggests a need to tease out the factors that separate this group from the majority, whether they be demographic (race, age), circumstantial (occupation, employment status), or attitudinal (gender ideology, tolerance of uncertainty).

Finally, what are the consequences of the gendered division of cognitive labor for men's and women's well-being, productivity, and career trajectories? My data hint at several, including marital conflict, heightened stress, and the fragmentation of paid work and leisure time, but I am unable to establish causality or identify long-term effects. Future research should assess the relationship between cognitive labor and rates of divorce, employment, and mental health challenges, among other outcomes. Regarding employment, for instance, anticipation of a high cognitive burden might shape young women's career choices, while the strain of managing heavy cognitive loads at work and at home might shape older women's decisions to opt out of the workforce. A clearer understanding of cognitive labor's opportunity costs is key to understanding its macro-level effects.

A long line of research has analyzed how couples accomplish the physical work required to run a household and raise children. True understanding of gender inequality in the household sphere, however, requires consideration of physical, emotional, *and* cognitive labor. While the invisible and abstract nature of much non-physical labor presents a challenge for researchers, this should be understood as an opportunity to innovate—to ask new questions, design new measurement tools, and apply new lenses to data analysis—rather than as an insurmountable obstacle. In short, it is time to move beyond a two-dimensional conception of household labor.

Acknowledgments

The author is grateful to Laura Adler, Mary Brinton, Kathleen Gerson, Alexandra Killewald, Maya Sen, Jocelyn Viterna, Chris Winship, Jaclyn Wong, the *ASR* editors and three anonymous reviewers, and participants in several Harvard University seminars for helpful feedback on earlier drafts.

Funding

This research has been supported by a Small Research Grant from the Weatherhead Initiative on Gender Inequality at Harvard University.

ORCID iD

Allison Daminger https://orcid.org/0000-0002-9706-1672

Notes

1. Names have been changed to protect respondents' privacy.
2. Whether or not childcare activities are included varies by study. Some scholars argue that childcare is qualitatively different from housework and should thus be analyzed separately (Sullivan 2013); others include childcare tasks in their assessment of overall household workload (e.g., Chesley and Flood 2017; Sayer 2005).

3. One couple was unmarried but had been cohabiting for approximately four years.
4. One participant had completed 3.5 years of college but not received his degree.
5. Like parenting websites in general (Dworkin, Connell, and Doty 2013; Radey and Randolph 2009), most of the digital forums used for recruiting have a primarily female membership. However, several have taken steps to welcome men, such as referencing "parents" rather than "moms" in the forum title and including an explicit invitation to fathers in the group description. Still, in all but two of the couples recruited digitally, the female partner initially contacted me regarding participation.
6. Although my definition of cognitive labor encompasses far more than decision-making, I sought to explain the logging task in accessible language and avoid priming participants with concepts related to gender or the division of labor.
7. The distinction between the cognitive and physical dimensions may be particularly difficult to appreciate in a domain like logistics and scheduling. For example, the "physical" action of scheduling a dentist appointment is tightly linked to the cognitive work involved in the decision to schedule. In this case, the cognitive labor would consist of remembering a child is due for a dental cleaning and determining how soon it should happen, which partner will accompany the child, and what days or times would be optimal. Some of this work may happen in parallel with the physical: if the receptionist reports there are no early-morning appointments available in the next month, for instance, it will be necessary to identify a fallback option.
8. Emens (2019) describes administrative housework as "the parallel shift," because it occurs on the margins of paid work and physical household labor rather than in a discrete block of time.
9. Hochschild (1989) coined the term "economy of gratitude" to describe couples' perceptions of each other's contributions to the partnership. An action one person offers up as a "gift" to the other may not be perceived by their spouse as worthy of gratitude if, for instance, the spouse is unaware of the action, believes it is their partner's responsibility, or classifies it as leisure rather than housework-related activity.
10. Numbers do not sum to nine due to the small number of cases in which I had insufficient data to make a classification.

References

Achen, Alexandra C., and Frank P. Stafford. 2005. "Data Quality of Housework Hours in the Panel Study of Income Dynamics: Who Really Does the Dishes?" *PSID Technical Series Paper* #05-04.

Ahn, Janet N., Elizabeth L. Haines, and Malia F. Mason. 2017. "Gender Stereotypes and the Coordination of Mnemonic Work within Heterosexual Couples: Romantic Partners Manage Their Daily To-Dos." *Sex Roles* 77(7–8):1–18.

Allen, Sarah M., and Alan J. Hawkins. 1999. "Maternal Gatekeeping: Mothers' Beliefs and Behaviors That Inhibit Greater Father Involvement in Family Work." *Journal of Marriage and Family* 61(1):199–212.

Arendell, Terry. 2001. "The New Care Work of Middle-Class Mothers: Managing Childrearing, Employment, and Time." Pp. 163–204 in *Minding the Time in Family Experience*, Vol. 3, *Emerging Perspectives and Issues*, edited by K. J. Daly. New York: JAI.

Bass, Brooke C. 2015. "Preparing for Parenthood? Gender, Aspirations, and the Reproduction of Labor Market Inequality." *Gender and Society* 29(3):362–85.

Berk, Sarah Fenstermaker. 1985. *The Gender Factory: The Apportionment of Work in American Households*. New York: Plenum Press

Bianchi, Suzanne M., Melissa A. Milkie, Liana C. Sayer, and John P. Robinson. 2000. "Is Anyone Doing the Housework? Trends in the Gender Division of Household Labor." *Social Forces* 79(1):191–228.

Bianchi, Suzanne M., John P. Robinson, and Melissa A. Milkie. 2006. *Changing Rhythms of American Family Life*. New York: Russell Sage Foundation.

Bianchi, Suzanne M., Liana C. Sayer, Melissa A. Milkie, and John P. Robinson. 2012. "Housework: Who Did, Does or Will Do It, and How Much Does It Matter?" *Social Forces* 91(1):55–63.

Bittman, Michael, and Judy Wajcman. 2000. "The Rush Hour: The Character of Leisure Time and Gender Equity." *Social Forces* 79(1):165–89.

Blair-Loy, Mary. 2003. *Competing Devotions: Career and Family among Women Executives*. Cambridge, MA: Harvard University Press.

Bolzendahl, Catherine I., and Daniel J. Myers. 2004. "Feminist Attitudes and Support for Gender Equality: Opinion Change in Women and Men, 1974–1998." *Social Forces* 83(2):759–90.

Chesley, Noelle, and Sarah Flood. 2017. "Signs of Change? At-Home and Breadwinner Parents' Housework and Child-Care Time." *Journal of Marriage and Family* 79(2):511–34.

Coltrane, Scott. 1996. *Family Man: Fatherhood, Housework, and Gender Equality*. Oxford, UK: Oxford University Press.

Coltrane, Scott. 2000. "Research on Household Labor: Modeling and Measuring the Social Embeddedness of Routine Family Work." *Journal of Marriage and Family* 62(4):1208–33.

Craig, Lyn. 2006. "Does Father Care Mean Fathers Share? A Comparison of How Mothers and Fathers in Intact Families Spend Time with Children." *Gender and Society* 20(2):259–81.

Craig, Lyn, and Judith E. Brown. 2016. "Feeling Rushed: Gendered Time Quality, Work Hours, Nonstandard Work Schedules, and Spousal Crossover." *Journal of Marriage and Family* 79(1):225–42.

Daly, Kerry J. 2001. "Controlling Time in Families: Patterns That Sustain Gendered Work in the Home." Pp.

227–49 in *Minding the Time in Family Experience*, Vol. 3, *Emerging Perspectives and Issues*, edited by K. J. Daly. New York: JAI.

Daniels, Arlene Kaplan. 1987. "Invisible Work." *Social Problems* 34(5):403–15.

Darrah, Charles N., James M. Freeman, and J. A. English-Lueck. 2007. *Busier Than Ever! Why American Families Can't Slow Down*. Palo Alto, CA: Stanford University Press.

Davis, Shannon N., and Theodore N. Greenstein. 2004. "Cross-National Variations in the Division of Household Labor." *Journal of Marriage and Family* 66(5):1260–71.

Deutsch, Francine M. 1999. *Halving It All: How Equally Shared Parenting Works*. Cambridge, MA: Harvard University Press.

Deutsch, Francine M., and Susan E. Saxon. 1998. "Traditional Ideologies, Nontraditional Lives." *Sex Roles* 38(5/6):331–62.

DeVault, Marjorie L. 1991. *Feeding the Family: The Social Organization of Caring as Gendered Work*. Chicago: University of Chicago Press.

DeVault, Marjorie L. 1999. "Comfort and Struggle: Emotion Work in Family Life." *ANNALS of the American Academy of Political and Social Science* 561(1):52–63.

Doan, Long, and Natasha Quadlin. 2018. "Partner Characteristics and Perceptions of Responsibility for Housework and Child Care." *Journal of Marriage and Family* 81(1):145–63.

Dworkin, Jodi, Jessica Connell, and Jennifer Doty. 2013. "A Literature Review of Parents' Online Behavior." *Cyberpsychology: Journal of Psychosocial Research on Cyberspace* 7(2), article 2 (http://dx.doi.org/10.5817/CP2013-2-2).

Emens, Elizabeth. 2019. *Life Admin: How I Learned to Do Less, Do Better, and Live More*. New York: Houghton Mifflin Harcourt.

Emma. 2017. "You Should've Asked." Retrieved May 8, 2018 (https://english.emmaclit.com/2017/05/20/youshouldve-asked/).

Fuwa, Makiko. 2004. "Macro-Level Gender Inequality and the Division of Household Labor in 22 Countries." *American Sociological Review* 69(6):751–67.

Goldberg, Abbie E., JuliAnna Z. Smith, and Maureen Perry-Jenkins. 2012. "The Division of Labor in Lesbian, Gay, and Heterosexual New Adoptive Parents." *Journal of Marriage and Family* 74(4):812–28.

Gregson, Nicky, and Michelle Lowe. 1994. "Waged Domestic Labour and the Renegotiation of the Domestic Division of Labour within Dual Career Households." *Sociology* 28(1):55–78.

Hall, Scott S., and Shelley M. MacDermid. 2009. "A Typology of Dual Earner Marriages Based on Work and Family Arrangements." *Journal of Family and Economic Issues* 30(3):215–25.

Hays, Sharon. 1996. *The Cultural Contradictions of Motherhood*. New Haven, CT: Yale University Press.

Hertz, Rosanna. 1986. *More Equal Than Others: Women and Men in Dual-Career Marriages*. Berkeley: University of California Press.

Hessing, Melody. 1994. "More Than Clockwork: Women's Time Management in Their Combined Workloads." *Sociological Perspectives* 37(4):611–33.

Hochschild, Arlie Russell. 1979. "Emotion Work, Feeling Rules, and Social Structure." *American Journal of Sociology* 85(3):551–75.

Hochschild, Arlie Russell, with Anne Machung. 1989. *The Second Shift: Working Families and the Revolution at Home*. New York: Penguin.

Kamo, Yoshinori. 2000. "'He Said, She Said': Assessing Discrepancies in Husbands' and Wives' Reports on the Division of Household Labor." *Social Science Research* 29(4):459–76.

Kamo, Yoshinori, and Ellen L. Cohen. 1998. "Division of Household Work between Partners: A Comparison of Black and White Couples." *Journal of Comparative Family Studies* 29(1):131–45.

Komter, Aafke. 1989. "Hidden Power in Marriage." *Gender and Society* 3(2):187–216.

Lachance-Grzela, Mylène, and Geneviève Bouchard. 2010. "Why Do Women Do the Lion's Share of Housework? A Decade of Research." *Sex Roles* 63(11–12):767–80.

Lam, Chun Bun, Susan M. McHale, and Ann C. Crouter. 2012. "The Division of Household Labor: Longitudinal Changes and Within-Couple Variation." *Journal of Marriage and Family* 74(5):944–52

Lareau, Annette. 2003. *Unequal Childhoods: Class, Race, and Family Life*. Berkeley: University of California Press.

LaRossa, Ralph. 1988. "Fatherhood and Social Change." *Family Relations* 37(4):451–57.

Lee, Yun-Suk, and Linda J. Waite. 2005. "Husbands' and Wives' Time Spent on Housework: A Comparison of Measures." *Journal of Marriage and Family* 67(2):328–36.

Mani, Anandi, Sendhil Mullainathan, Eldar Shafir, and Jiaying Zhao. 2013. "Poverty Impedes Cognitive Function." *Science* 341(6149):976–80.

Mattingly, Marybeth J., and Liana C. Sayer. 2006. "Under Pressure: Gender Differences in the Relationship between Free Time and Feeling Rushed." *Journal of Marriage and Family* 68(1):205–21.

McLean, Carmen P., Anu Asnaani, Brett T. Litz, and Stefan G. Hofmann. 2011. "Gender Differences in Anxiety Disorders: Prevalence, Course of Illness, Comorbidity and Burden of Illness." *Journal of Psychiatric Research* 45(8):1027–35.

Mederer, Helen J. 1993. "Division of Labor in Two-Earner Homes: Task Accomplishment versus Household Management as Critical Variables in Perceptions about Family Work." *Journal of Marriage and Family* 55(1):133–45.

Miller, Amanda J., and Daniel L. Carlson. 2016. "Great Expectations? Working- and Middle-Class Cohabitors' Expected and Actual Divisions of Housework." *Journal of Marriage and Family* 78(2):346–63.

Moore, Mignon R. 2008. "Gendered Power Relations among Women: A Study of Household Decision Making in Black, Lesbian Stepfamilies." *American Sociological Review* 73(2):335–56.

Mullainathan, Sendhil, and Eldar Shafir. 2013. *Scarcity: Why Having Too Little Means So Much*. New York: Times Books.

Offer, Shira, and Barbara Schneider. 2011. "Revisiting the Gender Gap in Time-Use Patterns: Multitasking and Well-Being among Mothers and Fathers in Dual-Earner Families." *American Sociological Review* 76(6):809–33.

Owens, Jennifer. 2018. "Women Are Overburdened with Their Families' 'Mental Loads.'" *Slate*, March 2. Retrieved November 24, 2018 (https://slate.com/human-interest/2018/03/women-are-overburdened-with-their-families-mental-loads.html).

Papanek, Hanna. 1979. "Family Status Production: The 'Work' and 'Non-work' of Women." *Signs* 4(4):775–81.

Pedulla, David S., and Sarah Thébaud. 2015. "Can We Finish the Revolution? Gender, Work-Family Ideals, and Institutional Constraint." *American Sociological Review* 80(1):116–39.

Radey, Melissa, and Karen A. Randolph. 2009. "Parenting Sources: How Do Parents Differ in Their Efforts to Learn about Parenting?" *Family Relations* 58(5):536–48.

Robinson, John P., and Geoffrey Godbey. 1997. *Time for Life: The Surprising Ways Americans Use Their Time*. University Park: The Pennsylvania State University Press.

Sayer, Liana C. 2005. "Gender, Time and Inequality: Trends in Women's and Men's Paid Work, Unpaid Work and Free Time." *Social Forces* 84(1):285–303.

Silverman, Rosa. 2018. "Are You Struggling with the 'Mental Load'? Here Are 8 Ways to Tell." *The Telegraph*, March 21. Retrieved November 24, 2018 (https://www.telegraph.co.uk/women/family/struggling-mental-load-8-ways-tell/).

Small, Mario Luis. 2017. *Someone to Talk To*. Oxford, UK: Oxford University Press.

Stone, Pamela. 2007. *Opting Out? Why Women Really Quit Careers and Head Home*. Berkeley: University of California Press.

Sullivan, Oriel. 1997. "Time Waits for No (Wo)Man: An Investigation of the Gendered Experience of Domestic Time." *Sociology* 31(2):221–39.

Sullivan, Oriel. 2010. "Changing Differences by Educational Attainment in Fathers' Domestic Labour and Child Care." *Sociology* 44(4):716–33.

Sullivan, Oriel. 2013. "What Do We Learn about Gender by Analyzing Housework Separately from Child Care? Some Considerations from Time-Use Evidence." *Journal of Family Theory & Review* 5(2):72–84.

Sullivan, Oriel, and Jonathan Gershuny. 2013. "Domestic Outsourcing and Multitasking: How Much Do They Really Contribute?" *Social Science Research* 42(5):1311–24.

Tai, Tsui-o, and Judith Treas. 2013. "Housework Task Hierarchies in 32 Countries." *European Sociological Review* 29(4):780–91.

Tichenor, Veronica Jaris. 2005. *Earning More and Getting Less: Why Successful Wives Can't Buy Equality*. New Brunswick, NJ: Rutgers University Press.

Twiggs, Joan E., Julia McQuillan, and Myra M. Ferree. 1999. "Meaning and Measurement: Reconceptualizing Measures of the Division of Household Labor." *Journal of Marriage and Family* 61(3):712–24.

Usdansky, Margaret L. 2011. "The Gender-Equality Paradox: Class and Incongruity between Work-Family Attitudes and Behaviors." *Journal of Family Theory & Review* 3(3):163–78.

Vohs, Kathleen D., Roy F. Baumeister, Brandon J. Schmeichel, Jean M. Twenge, Noelle M. Nelson, and Dianne M. Tice. 2008. "Making Choices Impairs Subsequent Self-Control: A Limited-Resource Account of Decision Making, Self-Regulation, and Active Initiative." *Journal of Personality and Social Psychology* 94(5):883–98.

Walzer, Susan. 1998. *Thinking about the Baby: Gender and Transitions into Parenthood*. Philadelphia: Temple University Press.

Wang, Jing, Nathan Novemsky, Ravi Dhar, and Roy F. Baumeister. 2010. "Trade-Offs and Depletion in Choice." *Journal of Marketing Research* 47(5):910–19.

Wetherell, Mark A., and Kirsty Carter. 2014. "The Multitasking Framework: The Effects of Increasing Workload on Acute Psychobiological Stress Reactivity." *Stress and Health* 30(2):103–09.

Wong, Jaclyn S. 2017. "Competing Desires: How Young Adult Couples Negotiate Moving for Career Opportunities." *Gender and Society* 31(2):171–96.

Allison Daminger is a doctoral candidate in Sociology and Social Policy and a James M. and Cathleen D. Stone PhD Scholar in Inequality and Wealth Concentration at Harvard University. Her research explores the interactions between societal inequalities and intra-household dynamics.