ESSAYS ON PROFESSIONALS' TEMPORAL AUTONOMY

by

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Abstract

Professionals struggle to control their work time, despite often (1) having relatively greater control over their work tasks, and (2) wanting to control their work time. My dissertation addresses this empirical and theoretical puzzle by refining our understanding of why professionals face difficulties expanding their temporal autonomy, and identifying mechanisms and processes that can address these barriers. I draw upon data from four separate ethnographic studies of STEM professionals. In my first essay, I identify conditions under which managers either support or limit employees' use of flexible work policies, and in turn, facilitate increases in professionals' temporal autonomy. In my second essay, I show how professionals—independent of managers—collaborate to expand control over their work hours. In my third essay, I show how professionals' temporal autonomy is shaped by family responsibilities. Overall, I contribute to the literature on professions, as well as related literatures on temporality and time in organizations, flexible work schedules, and the work-life interface. This dissertation also contributes to our understanding of gender inequality by showing how gendered experiences of time subtly disadvantage women.

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INTRODUCTION TO THE ESSAYS

Traditionally, professionals have had significant control over their day-to-day work tasks (Abbott, 1988; Freidson, 1994). Of course, this control has been imperfect. Managers, for instance, have often limited how professionals carry out tasks (Huising, 2014; Anteby, Chan, and DiBenigno, 2016). Nonetheless, these workers—who comprise a quarter of the US workforce (Bureau of Labor Statistics, 2020)—have historically had notable control over their day-to-day work.

But the context of professionals' work is changing. New developments in both technology and employment relations have shifted *when* work can take place. Modern technologies loosen the boundaries of when work can be performed, allowing for more flexibility in work hours (Mazmanian, Orlikowski, and Yates, 2013). And the shift to a gig economy has changed established norms of when work takes place (Spreitzer, Cameron, and Garrett, 2017). There have also been changes in the professionals' needs and preferences, with these employees increasingly wanting greater control over their work time. A growing number are in dual-income couples and need to balance work tasks, household chores, and childcare (Auerbach et al., 2018). And younger generations place more value on leisure activities such as hobbies and spending time with friends (Lyons and Kuron, 2014; Twenge, 2010). The COVID-19 pandemic has further increased employees' desires for control over their time, with many now juggling work tasks with childcare in a more immediate and stressful way (Williams, 2020).

These changes collectively raise new questions regarding when and how professionals control their work time. Scholars of professions, temporality and time in organizations, flexible schedules, and the work-family interface have developed a variety of theoretical concepts that relate to this control, including boundary control (Perlow, 1998), temporal flexibility (Briscoe,

2007; Evans et al., 2004; Gonsalves, 2020), and schedule control (Kelly, Moen, and Tranby, 2011). For theoretical clarity, I use the term "temporal autonomy" to refer to the extent to which employees can control when they work (Feldman, Reid, and Mazmanian, 2020).

The case of temporal autonomy poses an empirical and theoretical puzzle for extant theories of professionals' autonomy. In particular, despite professionals (1) having relatively greater control over their work tasks and (2) wanting to control their work time, they nonetheless struggle to control their work time. The proportion of white-collar and professional employees working over fifty hours per week rose from 45% to 58% from 1979 to 2009 (Cha and Weeden, 2014), with work intensity increasing over this same period (Gallie, 2017; Kalleberg, 2011). Although some of this increase in intensity might be explained by workers embracing ideals that promote overwork, many professionals are simply overworked and overloaded from the demands of managers and clients (Beckman and Mazmanian, 2020; Kelly and Moen, 2020; Michel, 2011).

In this dissertation, I address this puzzle by (1) refining our understanding of why professionals struggle to expand their temporal autonomy, and (2) identifying mechanisms and processes that can address these barriers and therefore increase professionals' temporal autonomy.[1] I do this by drawing on ethnographic data from four different organizations of STEM professionals. In my first essay, I show when and why managers either support or limit professionals' use of flexible work policies designed to increase workers' temporal autonomy. In my second essay, I unpack how client satisfaction limits professionals' control over their time, and demonstrate how these workers expand this autonomy through processes of quantification. In my third essay, I show how professionals' temporal autonomy at work is shaped by factors outside of the workplace, namely, employees' family responsibilities. Across my three essays, I

[1] While I do not use the term "temporal autonomy" explicitly across these essays, the connection of each individual essay to this broader concept is delineated here.

draw attention to how experiences of time are gendered by demonstrating how women facing gendered challenges both in the home and workplace that limit their temporal autonomy. Ultimately, I contribute to our theoretical understanding of professionals' autonomy in general and temporal autonomy in particular by refining our understanding of why professionals face difficulties expanding their temporal autonomy, and identifying mechanisms and processes that can address and overcome these barriers. I also draw upon and contribute to the literatures on temporality and time in organization, flexible work schedules, and the work-life interface.

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Chapter 1

UNPACKING THE FLEXIBILITY PARADOX: GENDERED CONSTRAINTS AND MANAGERS' IMPLEMENTATION OF FLEXIBLE WORK POLICIES

Despite the potential for flexible work policies to improve workers' schedule control and work-life management, employees use these policies less than expected. A prominent explanation for this failure is that managers expect employees to demonstrate commitment to work by working traditional hours on-site. The implicit assumption is that when managers are critical of these masculinized ideal worker norms, they are more likely to implement flexible work policies. I draw upon data from a 26-month ethnography of a STEM research organization's introduction of a flexible work policy. The managers most explicitly supportive of reducing overwork and acknowledging family responsibilities—in this case, women managers—were also the most likely to oppose the policy's implementation. I show how women managers faced gendered constraints which led them to rely on frequent, spontaneous, and in-person interactions with employees to enact their managerial role. Because the flexible work policy undermined these interactions, these managers opposed it. The end result is that women managers inadvertently reinforce the very organizational norms they are critical of. I contribute to the literatures on flexible work policies and gender inequality by showing how managers' policy implementation is informed by the gendered organizational processes which shape managers' day-to-day role enactment.

Key words: flexible work policies, gender inequality, ideal worker, managers, professionals, schedule control, work-life

INTRODUCTION

Flexibility in the time and place of work is highly valued by employees (Bailyn, 2006; Briscoe, 2007; Kelly and Moen, 2020). The recent coronavirus pandemic has increased employees' preferences for this flexibility, with over 50 percent of Americans stating that they want more flexibility after the pandemic ends (IBM Institute for Business Value, 2020; Williams, 2020; Yoon, 2020). In response to employees' demands for flexibility, organizations often formally adopt formal flexible work policies. Yet even when these policies are adopted, few employees actually use them or experience meaningful increases in control of their work schedules (Kelly and Moen, 2007; Correll et al., 2014; Williams, Blair-Loy, and Berdahl, 2013). While scholars have highlighted various reasons for this "flexibility paradox," one prominent explanation is that managers continue to expect employees' consistent availability and work commitment and so indirectly discourage (Perlow, 1998; Gonsalves, 2020; Padavic, Ely, and Reid, 2020) and in some cases directly limit (Kelly and Kalev, 2006) employees' use of flexible work policies.

Expectations of constant availability for work are highly masculinized, assuming a worker—typically a man—who has a partner available to care for all of his home and caregiving activities (Williams, 2001; Beckman and Mazmanian, 2020). Therefore, an implication of extant research is that if managers are more supportive of undoing these gendered, masculine-typed ways of working, they will be more likely to support and fully implement flexible work policies. Related literature has emerged that argues that *women* managers are more likely than men managers to want to forward women's interests, oppose these masculinized expectations of work, and support flexible work and other work-life policies (Ingram and Simons, 1995; Dumas and Sanchez-Burks, 2015; Mun and Brinton, 2015). However, the actual empirical findings regarding whether women managers implement these policies more frequently or effectively

than men are mixed (Blair-Loy and Wharton, 2002; Bloom, Kretschmer, and Van Reenen, 2011; Matos, Galinsky, and Bond, 2017). How can we make sense of these mixed findings and understand when and how managers implement flexible work policies?

What is missing in extant research is an understanding of how *organizations are gendered* in particular ways that shape women's and men's experiences as managers. Acker (1990) first explained that an organization—or any other analytic unit—is gendered in so far as "advantage and disadvantage, exploitation and control, action and emotion, meaning and identity are patterned through and in terms of a distinction between male and female, masculine and feminine" (Acker, 1990: 146). That is, gendered organizations are "defined, conceptualized, and structured in terms of a distinction between masculinity and femininity" (Britton, 2000: 419). Because gendered characteristics are differentially valued and evaluated—typically in a way that harms women—these organizations produce and reproduce gender inequalities (Ely and Padavic, 2007). Ultimately, organizations remain sites for the reproduction of men's advantage and women's disadvantage.

In this study, I aim to forward our understanding of if and when managers implement flexible work policies, and how managers' gender shapes this implementation. I draw upon data from a 26-month ethnography of a research organization comprised of science, technology, engineering, and mathematics professionals, which I refer to as STEMO. This organization's adoption of a flexible work policy presents a deviant or extreme case, that is, a case not predicted by extant theory (Ragin and Becker, 1992). In particular, I find that the STEMO managers who express the most support for changing workplace practices and norms to promote work-life balance and support women careers—in this case, women managers—were also the most likely to oppose the full implementation of the flexible work policy. I show how this opposition arose

from the gendered constraints women managers faced on a day-to-bay basis. In particular, these constraints led women managers to rely on day-to-day interactions with employees to enact their managerial role. Because the flexible work policy undermined these interactions, women managers opposed it.

I contribute to the literature on flexible work policies by showing how managers' support and implementation of these policies reflects not only stated beliefs and commitments, but also how gendered organizational processes inform managers' day-to-day role enactment, that is, how they carry out their role as manager. If flexible work policies are to be fully implemented, these gendered organizational processes must be addressed; introducing a new policy is not enough. Further, I contribute to the literature on gender inequality in the workplace by showing how the structural inequalities women face may constrain their actions in such a way that they unwittingly contribute to gendered organizational processes that they personally oppose.

THE IDEAL WORKER AND MANAGERS' RESPONSES TO FLEXIBLE WORK POLICIES

In recent decades, there has been a proliferation of flexible work policies across organizations. Use of these policies is correlated with positive outcomes for workers such as lower work-life conflict, improved health and wellbeing, and higher job satisfaction and engagement (Perlow, 2012; Moen et al., 2016). Policy use—under certain conditions—can also lead to positive increases in pay and employee retention (Briscoe and Kellogg, 2011). Others have argued that greater flexibility can even increase gender equality by giving employees more control over managing work and family responsibilities, ultimately facilitating women's career advancement (Stone, 2007; Goldin, 2014). Yet despite the popularity of flexibility policies, they often fail to meaningfully increase employees' schedule control, that is, their control over where and when

they work (Kelly and Moen, 2007; Correll et al., 2014; Williams, Blair-Loy, and Berdahl, 2013). Scholars refer to this as the "the flexibility paradox" (Gonsalves, 2020).

A prominent explanation for this paradox is that managers do not support policy use. Managers are in formal positions of power over subordinates, shaping their day-to-day working lives. Concretely, managers' lack of support is articulated in two ways. First, they may directly limit or block employees' policy use (Hornung, Rousseau, and Glaser, 2009; Lautsch, Kossek, and Eaton 2009; Brescoll, Glass, and Sedlovskaya, 2013). Because managers are often charged with introducing these policies to their unit and approving or disallowing employees' policy use, they can police flexible work practices in this way (Kelly and Kalev, 2006). Second, managers often support an organizational culture that is not amenable to employees' use of these policies and therefore indirectly discourage policy use (Michel, 2012; Reid, 2015; Blagoev and Schreyögg, 2019). In these cases, subordinates fear that using flexible work policies violates managers' expectations and they may be viewed as less committed (Epstein et al., 1999; Perrigino, Dunford, and Wilson, 2018). Managers' tacit support for such cultures, therefore, contributes further to employees' avoidance of flexible work policies.

While there are multiple reasons managers might oppose these policies, scholars most commonly highlight managers' strong expectations that employees are fully available for and committed to work, that is, to be "ideal workers" (Williams, 2001; e.g., Michel, 2012). Managers seem to value employee availability and commitment for three reasons. First, managers view employees' willingness to work as minimizing interruptions to the work process, even though—as scholars have highlighted—the connection between availability and work efficiency is questionable (Perlow, 1999). Second, managers are invested in maintaining employees' consistent availability because it reflects their own identification as fully committed workers

(Epstein et al., 1999; Kellogg, 2011). Finally, because it is difficult to measure the quality of knowledge work, managers of professionals might rely on availability as a proxy of skill (Bailyn, 2006; see Feldman, Reid, and Mazmanian, 2021 for a recent review). Correspondingly managers sometimes penalize employees for using flexible work policies through worse performance reviews, lower pay, or longer time until promotions (Leslie et al., 2012; Vandello et al., 2013; Munsch, Ridgeway, and Williams, 2014), further discouraging employees' policy use. Reflecting the essential role of managers in the implementation of flexible work policies, large-scale organizational change studies have aimed at shifting work norms and expectations for managers—in addition to workers—to more fully implement these policies (Perlow, 2012; Kelly et al., 2014).

The implicit assumption across this research is that managers who do *not* support this culture of overwork or view availability as an indicator of work commitment should be more likely to implement flexible work policies than those who do. That is, managers who recognize that workers cannot always be available or recognize and respect family responsibilities should be more likely to support their employees' use of flexible work policies. However, as I describe in the next section, managers' views of these policies do not come from nowhere. Rather, as scholars have highlighted, gender places a central role in whether managers view flexible work policies as acceptable or not.

Ideal Worker Expectations and Gender Differences in Managers' Implementation of Flexible Work Policies

The concept of the ideal worker is deeply gendered. While men are often expected to be fully committed workers (Cooper, 2000; Gerstel and Clawson, 2014; Reid, O'Neill, and Blair-Loy,

2018), women face intense cultural expectations to be "good" wives and mothers who are fully available to help in the home (Blair-Loy, 2003; Beckman and Mazmanian, 2020). This leads to two interrelated difficulties in relation to women's ability to be ideal workers. First, some women have less time to devote to work because of their increased household labor, making it more difficult for them to be fully committed and available for work tasks (Bailyn, 2006). Second, even when women regularly show their commitment through long work hours, they might still not be seen as ideal workers because simply being a woman or mother conflicts with cultural ideas of what makes a good employee (Turco, 2010; Stone and Hernandez, 2013).

Given the difficulties women face in fulfilling the ideal worker norm, scholars often argue that women managers will be more likely than men to support and implement flexible work and other work-life policies. The argument is typically laid out as follows: women managers have suffered from these inequalities, and as a result, they will want to further their own and other women's interests by supporting and implementing organizational changes that help individuals manage work and life (e.g., Goodstein, 1994; Poelmans and Behman, 2008; Dumas and Sanchez-Burks, 2015; Sweet, Pitt-Catsouphes, and James, 2015). To support this line of argument, scholars typically point to quantitative results that find that women managers are more likely than men managers to implement flexible work policies (Powell and Mainiero, 1999; Bloom, Kretschmer, and Van Reenen, 2011; Matos, Galinsky, and Bond, 2017). This line of reasoning fits in with broader arguments in the gender inequality literature that women managers are more likely to try to further their and other women's interests—referred to sometimes as being "agents of change"—and corresponding empirical findings that the presence of women managers is related to improvements in equality in pay and promotions as well as the adoption of policies that may create more equitable workplaces (Cohen and Huffman, 2007; Dobbin, Kim,

and Kalev, 2011; Kurtulus and Tomaskovic-Devey, 2012; Stainback, Kleiner, and Skaggs, 2016).

Yet, looking across the literature on flexible work policies, other studies find that women managers may be equally or even less likely than men managers to support and implement these policies (Blair-Loy and Wharton, 2002; Kelly et al., 2010). And in the broader literature on gender inequality, the presence of women managers has, in some cases, been found to be negatively correlated with gender equality in pay and promotions (Maume, 2011; Penner, Toro-Tulla, and Huffman, 2012; Srivastava and Sherman, 2015; Abraham, 2017; Murray et al., 2021). Scholars across these literatures offer reasons for mixed results. Some note the methodological limitations of previous studies (e.g., Srivastava and Sherman, 2015), while others explain that these variations reflect different organizational contexts, for instance, in terms of legal context or organizational size (e.g., Huffman, Cohen, and Pearlman, 2010; Abendroth et al., 2017). Scholars do not, however, offer a theoretically-based explanation as to why women managers might be supportive and implement changes in some contexts but be opposed in others. The reasons for variation in results, ultimately, remains unexplained.

Further, these mixed results seem to reflect two fundamental limitations of extant studies. First, current research does not examine how *organizational processes may be gendered in particular and distinct ways* that shape women's and men's experiences as managers, as I describe in detail below. Second, extant studies generally have little direct evidence of how managers respond to and interpret flexible work policies, reflecting that they are primarily quantitative studies using administrative data. Therefore, while it seems plausible that many women managers would want to a) support and help other women, and b) create a work environment that is more supportive of work-life management, it is unclear if and under what

conditions this translates into effective support and implementation of flexible work policies. And as I will detail in the findings section, I studied a case where—despite their support for women's advancement and work-life management—women managers opposed flexible work policies. Therefore, women managers' stated and intended support of other women cannot be assumed to result in the realized implementation of flexible work policies.

GENDERED CHALLENGES IN MANAGING

When examining how gender shapes managers' implementation of flexible work policies, it is important to consider not only managers' views about work-life management or supporting other women, but more broadly, the gendered organizations in which managers are embedded. Scholars have drawn attention to how organizations are not gender neutral, but rather, sites where gender differences in advantage and disadvantage are produced and reproduced in ways that advances men's interests over women's interests (Acker, 1998; Ely and Meyerson, 2000). In this light, women and men's experiences both before and after their promotion to manager will be markedly different, and likely place great constraints and challenges on women as they attempt to manage day-to-day (Ely, Ibarra, and Kolb, 2011). While there are many gendered organizational processes that unfold in organizations and ultimately disadvantage women (e.g., Martin, Knopoff, and Beckman, 1998; Thébaud, 2015; Botelho and Abraham, 2017), I highlight the two here: experiences of having technical skills and authority recognized.

First, even when men and women hold the same formal roles, women are often assigned tasks that are less socially valued (Kanter, 1977; Chan and Anteby, 2016). A typical example would be the assignment of women to note-taking or internal "people" focused tasks, rather than technically-intensive work or customer-facing roles (e.g., Cardador, 2017). And the tasks that women do perform—for instance, helping colleagues with work—are often viewed as feminine

and therefore devalued (Fletcher, 2001). Second, when women move into management positions, they less likely to be viewed legitimate authorities. Widespread status beliefs mean that higher status actors such as men are viewed as more legitimate leaders than lower status actors such as women, even when they occupy the same positions (Ridgeway, 2001; Doering and Thébaud, 2017). Further, individuals often associate the traits of a successful managers as characteristics, attitudes, and temperaments more commonly ascribed to men rather than women (Fletcher, 2004; Koenig et al., 2011). When women do act in more agentic or stereotypically masculine ways in line with expectations of managers, they may receive "backlash" for failing to fulfill stereotypes of women as warm and communal (Rudman and Glick, 2001; Brescoll, 2011).

Ultimately, such gendered organizational processes seem to culminate in day-to-day challenges for women managers. For instance, without recognized authority, women supervisors may have more difficulty gaining the cooperation of their subordinates (Vial, Napier, and Brescoll, 2016). In this light, it seems likely that women managers need to adapt their actions in light of these constraints, engaging in different managerial actions than men. Kanter (1977) briefly touches on this topic, suggesting that structural differences in men and women's experiences of work may perhaps explain differences in their managerial actions. Correspondingly, the gender and leadership literature provides evidence that women managers may act differently than men, at least in some cases (for reviews, see Eagly, Johannesen-Schmidt, and van Engen, 2003; Alvesson and Billing, 2009). But the reasons for and broader implications of gender differences in managerial behavior are not examined in detail in this literature, perhaps reflecting the fact that many of these studies are laboratory experiments.

Overall, then, literature on gender inequality as well as gender and management suggests that women managers are likely constrained in how they can act compare to men managers. But

it is unclear what this actually looks like in practice, and how this relates to the support and implementation of flexible work policies.

METHODS

Research Setting

I collected data for this study at STEMO, a research consultancy of science, technology, engineering and mathematics (STEM) professionals with advanced degrees in their field.[2] Clients typically hired STEMO to develop a product or write a technical report. Typical projects included improving GPS technologies' accuracy, developing specialty solar panels, and improving autonomous vehicles' safety. These projects often took one to five years to develop and execute. Three to ten employees generally worked on each project, and each employee was typically assigned to three to six projects at once. The assignment of particular employees to particular projects and tasks within them (e.g., report writing, research, administrative tasks) was carried out by the senior employees or manager of a given unit, although employees could voice their preferences to work on particular projects and tasks. Employees' work tasks could generally be performed relatively independently of employees and clients on a day-to-day basis (e.g., analyzing data, performing a literature review, or writing a section of a report). Work tasks also generally could be performed outside of STEMO's facilities.

Line employees' technical skills were highly valued within the organization, and developing these skills to perform a particular task could take over a decade. Client connections were also highly valued, as STEMO often engaged with repeat clients, contracting multiple projects over time. Maintaining and developing client connections was a multiyear process,

[2] To maintain confidentiality, the name STEMO is a pseudonym as are names of the flexible work policy and all individuals.

entailing learning about a clients' needs and interests, developing and maintaining multiple projects that fit these requirements, and preserving good relations across time.

Roughly two-thirds of STEMO's employees were men and 80 percent were white. Workers were grouped into 48 organizational units based on subject expertise (e.g., environmental science research, autonomous vehicle research). Each unit had one manager—who only supervised that unit—and roughly twelve employees. Managers were generally promoted from within their unit after performing technical work for, on average, ten years. When selecting managers, more senior STEMO managers considered a broad range of factors including technical skills and connections to clients as well as more traditional "managerial" skills such as organization and ability to develop employees. Once promoted, managers were formally tasked with overseeing a broad range of tasks including contracting in new client work, helping subordinates as needed on technical tasks, overseeing employees' project work, performing administrative tasks, and helping employees professionally develop. However, STEMO was relatively decentralized, and managers were given a great deal of independence in determining if and how they engaged in each of these activities.

Introduction of Flex-It. Before the new flexibility policy "Flex-It" was rolled out, STEMO employees had limited schedule control, that is, control over where and when they worked (Table 1). Each weekday, they were expected to work at least eight hours within a twelve-hour period between 6:30am and 6pm, with a requirement to work during STEMO's "core hours" of 10am to 3pm. Workers could not take breaks besides lunch and needed to work at the office at least three whole days per week. Managers at STEMO generally enforced these rules.

---Insert Table 1 here---

In the two years before Flex-It's rollout, employees regularly complained about the rigidity of STEMO's work schedules. While a diverse set of employees voiced concerns, the most criticism came from women employees, who were frustrated because STEMO's scheduling practices made it difficult for them to both work and manage family. Common complaints from these women included an inability to work at home when kids were home from school (e.g., because they were sick or it was a snow day), unnecessary time spent commuting to and from the office, and difficulties dropping off and picking up children because of STEMO's constrained schedules. In response, senior managers assembled a committee of HR specialists, employees, and managers to develop a new opt-in flexible work policy that was named "Flex-It." The policy was designed to increase employees' control over when and where they worked (Table 1). Under Flex-It, employees could work any time between the hours of 6am and 8pm as long as they a) worked during STEMO's reduced core hours of 10:30am to 2:30pm on Monday through Thursday, and b) worked at least eighty hours during a two-week pay period. They were also able to work at home when they wanted, as long as they worked in the office twice a week during core hours. To enroll in Flex-It, employees needed to attend a half-hour training session and receive their manager's one-time approval. All managers were required to attend one management-only Flex-It training session.

Despite the possibility of Flex-It increasing employees' schedule control—and by extension, their ability to manage work and life demands—change was not inevitable. As discussed above, many scholarly accounts document that managers often ignore flexible work policies and retain control over workers' schedules. Furthering the potential for managers to ignore these policies was the fact that STEMO managers retained discretion over their

departments, as described above. One HR specialist involved in the rollout of Flex-It noted, “We have over forty managers at STEMO and how they manage these policies with their employees is really up to them. We don’t police here.” Therefore, while Flex-It opened up the possibility of increasing employees’ schedule control, it did not guarantee it.

Data Collection

The data collection for this study was part of a broader study on work, wellbeing, and effectiveness at STEMO. In particular, an internal committee of STEMO managers and employees approached my university with a broad interest in investigating and improving these issues. This included, but was not limited to, examining the rollout of Flex-It. As I was looking for a dissertation site at the time and had a broad interest in these topics, I volunteered to lead this project. Reflecting the fact that STEMO itself was comprised of researchers who respected the research process, I was given independence in collecting and analyzing data.

I collected data primarily through ethnographic observations and interviews of STEMO’s employees and managers. Data collection lasted a total of 26 months, beginning six months before Flex-It’s rollout. However, I intensified data collection one month before and seven months after Flex-It was officially adopted. I decreased my time in the field when a) I had gathered data across all 48 of STEMO’s units as described below, and b) employees no longer reported changes in their experience of using Flex-It. I continued data collection for another 13 months to confirm that there were no additional changes in workers’ experiences.

To learn about Flex-It, I attended the Flex-It committee’s monthly meetings both before and after the policy was rolled out. I interviewed all seven members of the committee. I observed the three Flex-It training sessions for employees, the one Flex-It training session for managers,

the two Flex-It feedback sessions for employees, and the one Flex-It feedback session for managers. To learn how Flex-It would affect employees' and managers' day-to-day experiences, I observed their daily work at STEMO, including when they attended meetings, dropped by one another's offices, chatted in the hallway, and went out for lunch. I also attended STEMO-wide events such as trainings, town halls, community of practice research groups, goodbye parties, and the annual picnic. Additionally, I shadowed 22 employees and 12 managers for a full day each, and I engaged in hundreds of informal conversations with employees and managers. In total, I visited STEMO on 149 different days for periods of time ranging from one to ten hours. I took detailed fieldnotes during observations. Because many of my observations took place during seated meetings or conversations, I often typed fieldnotes directly into my laptop. When I took notes on paper, I typed them up on the same day.

I also arranged individual interviews with employees and managers where I inquired about their interpretations and experiences of Flex-It. I recruited interviewees initially by sending a STEMO-wide email. As I engaged in ethnographic observations, I met new employees and managers, and invited them to participate in interviews as well. In interviews with employees, I asked broad questions and their experiences of working at STEMO. I also asked if they or others in their unit had enrolled in Flex-It, if they talked to their manager about their enrollment and if so, how that conversation unfolded. I asked detailed questions about their work schedule, both before and after enrolling in Flex-It. To get a better sense of how employees interacted day-to-day with their managers, I also asked about what they talked to their manager about, how often they talked and how they usually communicated with one another. In interviews with managers, I asked about how they came to be managers, their general approach to management, and when, why, and how they interacted with employees. I also asked if their subordinates enrolled in Flex-

It and how managers experienced and interpreted the policy introduction, rollout, and implementation. In total, I performed 144 employee interviews and 38 manager interviews. Interviews were typically one hour long.

I also sent a STEMO-wide email before Flex-It was rolled out in which I asked employees to send feedback on their experiences at STEMO in relation to work, work-life balance, and work schedules. I did this to provide all managers and employees with an opportunity to describe their experiences. Ten months after Flex-It rolled out, I sent a similar email, this time also asking workers to reflect upon their experiences with Flex-It. I received 270 responses, and approximately half of STEMO's workers responded to one or both of my emails. I also was able to access and review a large amount of archival data from STEMO, including current and historical organizational charts, STEMO-wide newsletters and communications, and internal reports on STEMO culture. Across these methods of data collection, employees and managers were eager to talk with me. As many were themselves researchers, they were interested in participating in an academic study. Many also explained that they were interested in participating because they recognized the importance of widespread participation in the study so that it was representative of various viewpoints.

As described below, early in my data collection and analysis I noticed key differences in how STEMO's 48 units experienced Flex-It's rollout. These early findings informed my subsequent data collection, and I intentionally focused on observing and interviewing employees across all of STEMO's units. For each unit, I triangulated by collecting data through observations, interviews, and/or responses to my STEMO-wide email (Mathison, 1988). This allowed me to compare, for instance, descriptions of managers' approaches to supervision with

observations of their day-to-day action. I found that across these methods of data collection, findings were fairly consistent.

I attempted to reach theoretical saturation as I collected data (Small, 2009). For instance, as managers' gender emerged as important in the implementation of Flex-It, I made efforts to capture data on women managers' units as they comprised a smaller proportion of STEMO's units. As I reached saturation, I decreased the intensity of my data collection. Specifically, I performed fewer observations and interviews in units where initial observations and interviews did not reveal anything new or different from units I studied more extensively earlier in the data collection process. In Table 2, I show how my theoretical sampling maps onto my key variables—gender, managerial resources, and responses to Flex-It. In this same table, I also summarize my data collection efforts across managers' units.

---Insert Table 2 here---

Data Analysis

After each interview and observation session, I coded my data with inductively generated codes (Charmaz, 2006). These initial codes generally focused on workers' experiences of time and space both at work and at home, their understandings and experiences of STEMO's scheduling policies, and their more general experiences of working at STEMO. As I coded, I wrote memos analyzing emerging themes. Through this initial analysis, I noticed that managers played a key role in if and how employees used Flex-It. Therefore, I performed another round of data analysis focused on examining how exactly managers shaped employees' use of Flex-It. I noticed that some managers supported employees' use of the policy, and their employees used Flex-It freely and experienced increases in schedule control. In contrast, other managers opposed and limited

employees' policy use, and their employees did not experience notable increases in schedule control. I began to focus on managers and their unit's outcomes as my principle unit of analysis. I classified each manager as either supporting and implementing the policy, or opposing it and not implementing it or implementing in a limited way. I also classified the Flex-It related experiences (e.g., in terms of schedule and work-life management) of employees in their units.

Through this data sorting, I noticed that there was gender pattern in which managers supported versus opposed the flexible work policy. Specifically, while 27 of the 32 men managers (84%) supported Flex-It, only three of the 12 women managers (25%) supported the policy. This surprised me because many of the women managers had expressed their opposition to expectations of extreme devotion and commitment at work—what the literature refers to as the "ideal worker schema"—as well as their support of helping women succeed in the workplace and the importance of valuing family life in addition to work. In contrast, men managers rarely expressed opposition to ideas of devotion and commitment to work, nor did they speak in support of women or work-life management. With these initial findings in mind, I performed a more targeted analysis, examining how gender shaped managers experiences at STEMO as well as their responses to Flex-It. I coded my data for managers' understandings of their role, day-to-day actions, and their views of employees' control over the time and place of work.

Through this analysis, I eventually noticed that women and men managers tended to interpret their role differently and engage in day-to-day managerial actions. Therefore, I performed another round of data analysis, this time focusing more clearly on specifying the differences between women and men managers' role interpretations and day-to-day actions. Through this analysis, I developed an initial typology of managers' approaches to supervising employees. Importantly, I noticed that gender differences in role experiences did not reflect

differences in personality or preferences, but rather, reflected real differences in the resources that women and men managers drew upon day-to-day when supervising. By resources, I refer to the material, social, cultural, and symbolic means which actors draw upon to enact control over others (Wrong, 1979). Another round of data analysis allowed me to better define these resources, as well as classify managers' experiences of these resources.

After this analysis, there still remained the question of how exactly these gender differences in resources and role experiences related to managers' responses to Flex-It. Through several iterations of data analysis, I eventually identified that gender differences in managers' *interactions* with employees—and the temporal and spatial characteristics underlying these interactions—seemed to connect these two sets of concepts. Ultimately, then, I found that women and men managers had different resources when carrying out their day-to-day work, and these resources informed their role experiences. This in turn shaped gendered differences in how managers interacted with employees, and ultimately, managers' reactions to Flex-It. These findings represent the key insights of this paper, and are described in detail below.

Throughout my data analysis, I wrote extensive memos, which helped me to develop my analysis further. Further, I performed a series of more targeted analyses. First, I examined in more detail the differences in men and women managers' resources, confirming for instance that they had similar experiences with being able to provide bonus pay as an incentive. Second, I examined if managers' approaches to interacting with employees were existing on a continuum or in opposition, as well as if there were sub-categories within these broader categories or a third "hybrid" approach. Third, I studied how context (e.g., employees' gender, urgency of work tasks) shaped managers' interaction patterns. These analyses ultimately helped support the main argument I lay out in the paper, but as they are less central to this argument, I include them in

Appendix I. I also examined several alternative explanations—confirming that they did not explain my results—which I address further down in the paper.

FINDINGS: MANAGERS GENDERED EXPERIENCES AT FLEX-IT

Women managers at STEMO were more likely to speak of the importance of work-life management and the need to support women's careers than men managers. However, they were also more likely to oppose Flex-It, which—as I describe below—helped women employees to manage work and life demands. Below, I first depict the gender differences in managers' views of work-life management and career support for women subordinates. Then, I demonstrate the gendered ways in which organizational processes shaped managers' role enactment, and how these gender differences in interaction culminated in men managers' acceptance of Flex-It but women managers' opposition to the same policy. Finally, I highlight exceptions to this gendered pattern, emphasizing the varied ways in which men and women experienced gendered organizational processes at STEMO.

MANAGERS' VIEWS OF WORK-LIFE MANAGEMENT AND WOMEN'S ADVANCEMENT IN THE WORKPLACE

Women and men managers varied in their views of how employees should approach managing work and life demands. Women managers described how it was important to recognize and respect employees' time with their families, and how they wanted to help workers manage these work and life demands. Manager Lisa explained:

> A [work] problem will still be here tomorrow and if it's a matter of a [research-related emergency], by all means stay. But if it isn't an [emergency], pretty safe to go home and

> work on it tomorrow. You had to kind of put things in perspective. Especially people who have young children …. People think, 'I should be working on this because you know, my, this is my career and it's only, you know, an extra day.' But that extra day is very long for a child.

It was important for employees to recognize and value time at home with family. Lisa added, "We as people do better at everything when we have a balanced approach and different things are important at different aspects in our lives." Similarly, Manager Denise noted regarding employees' work and home, "it's important to seek a balance." This focus on the importance of balancing work and life translated to managers wanting to help their employees manage demands of work and home. Manager Amy explained, "I took care of my kids when they were younger. If they needed to come home sick from school, I was the one to get them. It was hard. So I understand what it's like to be a working mom and be in that position, and I want to help my employees." Notably, all but one woman manager—who never had children—had either performed most of their children's care or split care equally with a partner when their children were younger. These managers—like Amy described above—had faced their own work-life management difficulties, and were motivated to help their employees not experience the same challenges.

Women managers' support was made tangible through their active implementation of a variety of work-life policies—with the notable exception of Flex-It, as I detail below. For instance, they encouraged women to take maternity leave. As manager Lori explained, "One summer I had like three women in my unit pregnant." She helped them organize their work so that they could easily transition to being at home. Lori noted, "There is never a question. You've got to take your time with your children. I'll help find people to cover your work." Similarly,

women managers encouraged their employees to use STEMO's onsite childcare center. Five had even served on the center's board. Another two were involved in the setup of a backup childcare program for employees. As manager Cheryl explained, "We asked, 'What can we potentially do to give people with kids some flexibility and options?' And out of that came to the backup care program. We have a segment of the workforce that have young kids and they really see this as a tremendous benefit." While women managers recognized that both men and women employees had family demands, they acknowledged that it was women's careers in particular that were sometimes held back because of work and life demands. As one noted, "For women to succeed, it takes a culture of support. When I had my two kids 20 odd years ago, they were preemies and I was expected to come back in three months, without any help or support. It was horrible… Now, I'm trying to encourage women to know that they can have a family and work too."

In contrast, men managers rarely expressed concerns regarding the need to manage both work and life demands. Instead, work was generally prioritized by these men. As manager Scott quipped, "Customer service comes first." It was an absolute priority. Manager Edward similarly noted, "I am, above all, focused on relationships with clients." He described over ten minutes the many ways in which he tried to be responsive to customers, without acknowledging any personal or home factors that could impinge upon his ability to be available to clients. This relative inattention to family reflected the fact that most of these men had had wives who either stayed at home or worked part-time when their children were younger. Manager Jim, who had three young children, explained that has wife Danielle had quit her job after their third child. One day, he told Danielle he would pick up their daughter Emily at 5:30pm from softball practice on his way home from work. However, he got caught up in some work, and at 4:39pm called Danielle to say that he would not, in fact, pick up Emily. Danielle picked her up instead. Similarly, manager

Donald explained that when his children—now teenagers—were younger, men were rarely involved in caregiving: "That wouldn't have happened when I was younger."

Yet, despite women managers' stronger support for helping employees attend to family and life demands, they were much less likely than men managers to support or fully implement Flex-It. As I describe below, this opposition reflected the ways in which gendered organizational processes shaped managers' role enactment.

MANAGERS' RESOURCES

Gendered assignments of tasks and gendered attributions of authority shaped women and men managers' development of three resources: technical expertise, client relations, and recognized authority. Women managers typically developing fewer of these resources. Table 3 contains additional examples.

---Insert Table 3 here---

Men Managers' Resources

Task Assignment and the Development of Technical Expertise and Client Relations. Men managers typically had greater technical expertise and client connections than women managers. This reflected, in part, the gendered nature of task assignment at STEMO. From early on in his career, Brad had been assigned intensive research work by his manager and other senior employees in his unit, helping to develop new and advanced technologies. Similarly, as a junior employee, Phillip was taken under the wing of his own manager, whom Phillip described as a great mentor and role model. The manager made sure Phillip was assigned to a range of challenging technical tasks.

This engagement in technical and client-facing work seemed to support these men's continued seeking out of similar tasks. Brad, for instance, became entranced with technical work noting, "I love the technical stuff." He sought out more and more complex projects. And as he performed this work, he nurtured technical skills, while also meeting a broad range of clients as he worked on various projects. Over the course of ten years, he eventually reached the highest rank in STEMO's technical expert track. When his manager Peter retired, Brad opted to take on the managerial role since he was already running many of the unit's projects, and knew most of the unit's clients. Similarly, Phillip embraced his technical work and opted to be "in charge of the biggest project in the unit, which was 50 to 60 percent of the unit's work." When his mentor-manager retired, it made sense that he became manager because he was already bringing in so much of his unit's work. Stories like Brad and Phillip's—of men being taken under a male managers wing, being nurtured, and then being promoted to manager—were common. As manager Gerald described, such an experience was "a natural progression."

Attributions and Recognition of Authority. After moving into managerial positions, men managers generally found that employees listened to and respected their directions. This seemed to reflect, at least in part, the fact that employees seemed to view men's enactments of assertiveness and directness as acceptable and expected. During a development exercise from an outside trainer, employees were asked to "use archetypes to characterize individual managers." Various men managers were complimented for "being forceful when he needs to be," "being able to step up and be forceful," and "having an authoritative voice." Men managers' directedness and assertiveness was praised. In another example, during a project meeting several employees discussed how one male manager and a senior male technical employee could

"command the room" with their "authoritative voices." While there was a senior woman present—who in fact ran the project—no one complemented her.

Correspondingly, on a day-to-day basis, employees seemed to respect and accept men managers' directions, requests, and suggestions. Similar to other managers of professionals, these men managers did not frequently order their employees to do particular tasks (Huising, 2014; Turco, 2016). But when they did—often in reaction to an upset client or sudden technical issue—employees generally conformed to their requests. For instance, when a customer complained to manager Walter that his employees were working too slowly, Walter simply told them to work faster. They picked up their pace immediately. From the perspective of men managers, employees' deference manifested itself in the form of "smooth" day-to-day operations in their units. Manager Edward, looking back over his 20-year career in management, explained that he had relatively few problems with employees: "There haven't been a lot of problematic incidents I have had to deal with." The process was straightforward; he told his employees what to do, and they listened: "You just explain the work clearly to them, and then just make sure it's completed within budget blah blah blah." Edward described himself as "lucky" to have such cooperative employees. But looking across managers, it was not so much luck but rather managers' gender that accounted for whether employees were more or less deferential to their supervisors.

Women Managers' Resources

Task Assignment and the Development of Technical Expertise and Client Relations.

Women managers typically had less technical expertise and fewer client connections than men managers. This reflected, in part, the gendered nature of task assignment at STEMO. Before her promotion to manager, Tiffany's own manager asked her to organize their unit's client contracts.

This task "took a lot of time" because it required her to interface with individual employees in her unit who were each in charge of different contracts, although she did not interact with clients directly. As she described, "Before my promotion to manager, I was not on the track to become a technical expert. I was not even doing anything related to my [research area] background [laugh]." Similarly, Rebecca described how her manager enlisted her to organize the "paper trail" for each employee in their unit, reaching out to them to check in on if they needed help with reimbursements or filling out payroll information.

Over time, these gendered task assignments seemed to support women articulating a preference for sharing and coordinating information among employees in their unit, and ultimately, seeking out related activities. Manager Tiffany, for instance, "took on" more contract supervision work after her manager's initial assignment. She began to actively gather employees' reports of experiences with various clients, and to pass this information on to others in their unit. Similarly, manager Rebecca "volunteered" to check in with her unit's project teams to see if they needed any internal resources such as specialized task help. If teams needed help, she would recommend another individual in the unit that had the relevant skills. Eventually, these women's active involvement and interaction with their coworkers eventually set them up to be strong contenders for managerial positions. As Rebecca noted, "While my manager was away [at clients], I was running the office." Senior managers noticed this, and eventually promoted her.

Attributions and Recognition of Authority. After moving into managerial positions, women managers often found that employees often disregarded and disrespected their directions. This seemed to reflect, at least in part, employees' expectations of women as not being overly commanding or assertive. In the same training exercise described above, women managers were

complimented for being “the quiet one who figures everything out” and “not speaking too much during meetings.” And they did not receive compliments for being assertive or forceful, like their male counterparts. In another example, employee Janice expressed that she was upset “women managers took over” STEMO, despite the fact that they comprised less than a third of STEMO’s managers. She asserted that women managers were “hard to work with” and were often “disrespectful” of employees by giving them orders and directions, rather than treating them more personably. Men managers, however, were not criticized. Implied in Janice’s statement was an expectation that women managers treat employees as equals—to show respect—whereas men managers did not.

While such direct, vocal, gendered attacks on women managers were rare, employees’ disassociation of women with authority was reflected in women managers’ everyday experiences of disrespect from subordinates. As manager Lisa explained, “I cannot make anyone do a single thing. They choose to do something or they do not do it… My staff could ignore everything I say.” When Lisa made direct requests to subordinates, they did not always respond to or fulfill these requests. One Wednesday, she asked employee Seth to attend an important work meeting. Seth showed up late. In another example, she asked three employees to quiet down during a meeting as she was trying to provide instructions on next steps in their work. They did not quiet down, but instead continued talking over her. Her employees did not always listen to nor respect her requests. Similarly, manager Jennifer detailed how she struggled to get six particular employees to respond to and respect her directives: “Sometimes they don’t even do the assignments I tell them to do.” In one example, she asked employee Stanley to email a client a specific description of how STEMO would handle the client’s project. Stanley instead sent his

own description. Women managers were more often disregarded and disrespected than men managers.

MANAGERS' INTERACTIONS WITH EMPLOYEES

Differences in resources shaped how men and women managers interacted with employees. Men managers, viewed these interactions as less essential and did not go out of their way to engage with subordinates. In contrast, women managers viewed employee interactions as central to the accomplishment of their role, and engaged with subordinates frequently, spontaneously, and in-person.

---Insert Table 4 here---

Men Managers' Interactions with Employees

Interpretation of Employee Interactions. Men managers tended to view interactions with employees as optional, reflecting their continued focus on maintaining and building technical skills and client relations. Manager Gerald spoke with enthusiasm about his devotion to finding work from new clients: "I always put in time to get us some new work." This meant, he described, attending conferences to meet new potential clients as well as visiting client sites. Gerald also relished research work: "I love working on getting a paper published. I actually really enjoy that." However, while deeply involved in this technical and client-facing work, Gerald did not prioritize interacting with subordinates: "There is not a lot of interchange between me and them." For Gerald, technical and client-facing work was favored over subordinate interactions.

Importantly, these managers also seemed to not view interactions with employees as essential because their authority was already recognized. Like Gerald, manager Jacob noted that he did not view interactions with subordinates as a priority: “I don’t need to go to my employees.” When asked to elaborate, he explained that he felt secure in his managerial role: “I just don’t have the same kind of insecurity as the stereotypical manager. I’ve never doubted my own authority or legitimacy.” Jacob’s security in his managerial role meant that he did not feel the need to interact frequently with employees, but rather, could focus on visiting customers or hosting them at STEMO, activities which he regularly engaged in. Of course, whether managers felt secure in their role was not a reflection of having the personality of a “stereotypical manager,” but rather, reflected gendered differences in the respect employees demonstrated to managers.

Pattern of Interaction. Men managers typically interacted with employees when approached by them with a problem, so that they could otherwise remain focused on technical and client-related work. Manager Carl, for instance, told his employees, “Do what you need to do and let me know if there's a problem.” So, on a day-to-day basis, Carl’s employees typically worked independently of him, only reaching out when they needed his particular assistance. In a typical example, one Thursday Samantha had difficulty figuring out how to handle a customer who was upset because her project team was working slowly. She had not talked to Carl at all that day, but now called him up to explain the problem. Carl agreed to “intervene” on her behalf, called the customer, and apologized for the delay. The customer, who had known Carl for years, accepted his apology. As employee Samantha explained, “I’ll just tell Carl, ‘I need help with this client’ or ‘Could you review this [technical] work for me?’” She added, “When I talk to him, it’s

usually me telling him, 'This is what I am working on right now and this part of it has become an issue.'" Otherwise, Carl was hands off: "He is not a micromanager." For his part, Carl spent most of his time performing technical work for clients.

Similarly, manager Scott explained, "I am supportive of my staff but I try to be hands off." He provided subordinates with help if and when they asked for it: "My staff will give me an update on what they're doing and ask me questions. Then, I make sure they have the resources they need to be successful." One Monday, employee Christian stopped by Scott's office. Christian explained that he had just forwarded Scott a client's email, in which the client suggested a particular approach to the work Christian was performing. Christian could not tell if the approach would actually work, and wanted Scott's input before he implemented it. Scott told Christian that it seemed like a good idea based on his own experience with similar work, and encouraged Christian to run some analyses to investigate the client's suggestion further. Christian thanked Scott, and left his office. The entire interaction took four minutes, and after it ended, Scott returned to the technical work he had been performing before Christian arrived.

Temporality. As described above, men managers waited for employees to initiate interactions if and when they needed help. Therefore, employees generally determined the frequency of these interactions, as long as this frequency did not impede managers' other tasks. Manager Jeremy explained that he met with his employees only when asked: "My staff tells me how urgent or important it is for them to have one-on-one meetings with me." His employee Kristen, for instance, was extremely skilled in technical work and so she largely worked independently of him. In contrast, his new hire Victoria met with him at least once a week. Similarly, manager Ryan's employees varied in how frequently they reached out to him. Over

the course of one Wednesday, subordinates Roy and Heidi each talked to Ryan on three separate occasions. Three other employees talked to him once, and his other five employees did not reach out to him at all except through email. Notably, while these managers helped subordinates, they limited how much time they devoted to employees because they set aside time to sustain their own technical expertise and client relations. As manager Jim explained, "I am really busy with my [technical] project work, so I don't have time to babysit people." When one employee asked Jim for the third time on the same day for help with his work, Jim told him that he was too busy to help. Employees generally determined the frequency of their interactions with these managers, as long as this frequency did not interfere with these managers' other tasks.

These managers' interactions with employees tended to occur at times that were mutually agreeable for managers and subordinates. Employee Frederick preferred to schedule meetings ahead of time and so requested "biweekly, half hour meetings" with his manager Donald on Mondays from 4pm to 4:30pm. In contrast, employee Trevor stopped by Donald's office whenever he had questions: "We will just get together and talk if there's something I want his input, help, or guidance on. We'll discuss it and sometimes brainstorm together." Donald accommodated Trevor's spontaneous visits, provided that he was not meeting with clients or performing technical work. Similarly, Neil often dropped by his manager Matt's office to ask work-related questions. When he stopped by one morning and Matt was meeting with a client, Neil simply returned in the early afternoon and asked his question then. As in this example, these managers sometimes had limited availability because they continued to maintain their technical skills and meet with clients. As employee Ralph described regarding his manager Ken, "He can be hard to get ahold of because he's so often visiting clients." These managers talked to

employees at times that worked for employees, as long as managers were not occupied with other tasks at these times.

Men managers were also flexible in terms of whether interactions took place synchronously or asynchronously, as long as the arrangement worked well for both parties. If an employee did not want to schedule a meeting with him, for instance, manager Jeremy would often email back-and-forth about any work or concerns they had, provided they were not too complex to communicate over email. In one case, he told an employee they could email about one work problem because "there was not any urgency." Similarly, manager Arthur tended to talk on the phone or in-person with his employees in "real time" for "critical" conversations related to project-work. Otherwise, he was fine with interactions unfolding more slowly through email, as suited the employee and his schedule. Managers like Arthur were flexible in terms of whether interactions took place synchronously or asynchronously.

Spatiality. Men managers' interactions with employees tended to occur at places that were convenient for both parties. Manager Samuel explained, "Typically, employees just stop by my office to get help solving a problem, or if they're looking for advice. But sometimes we have phone meetings if one of us is out of the office, like at a client." One Wednesday, his employee Holly stopped by his office, saw he was out, and called him instead. Similarly, employee Dennis explained how he interacted with his manager Timothy: "If he's in his office, I usually pop by. That's easiest for me. But if he's out, I'll just phone or email him." Timothy, for his part, was fine with meeting in person provided that it was during his regular workhours. In the evenings, he told his employees to call or email him instead. These managers' interactions with employees tended to occur at places that were convenient for both parties

These managers also used different means to communicate with employees, specifically email, phone calls, and instant messages. Because they typically traveled once a month or more to visit clients, phone and email were sometimes the only ways subordinates could reach them. As employee Albert noted pointedly about his manager Randall, "When he's visiting a client, I'll just call." Similarly Victor explained that because his manager Ron was "never in" because of work travel, he would just email if he had a quick question. Correspondingly, men managers typically planned and prepared for individuals—including themselves—to join meetings remotely. Manager Sean asked his subordinates to provide call-in numbers for any meetings they booked with him, in case either he or the subordinates were out of the office and needed to call in. These managers did not favor face-to-face interactions, but rather, used a variety of means to communicate with employees, including email, phone calls, and instant messages.

Women Managers' Interactions with Employees

Interpretation of Employee Interactions. Despite holding the same formal positions as men managers, women managers had a different view of employee interactions, deeming these interactions as necessary to effectively manage. The importance of interactions was twofold. For one, it was through such interactions that they could share and coordinate information between subordinates, as they had done before their promotion. Manager Erica explained that it was through conversations with subordinates that she learned what was happening in her unit: "Those little encounters in the hallway, even if they are small and seem inconsequential, they are important." Using several examples, she explained in detail how often after getting this information, she passed it on to her subordinates. Similarly, manager Denise explained, "I try to engage with as many individuals in my unit as possible… I want to get them to explain to me

their work." Then, relying on this information, she then "facilitated discussions" with other employees as needed, providing them with information about clients, projects, and STEMO-wide happenings.

Interacting with employees was also important for women managers because it was through these interactions that they cultivated cooperation and agreement with employees. Manager Lisa—who, as described above, had employees that did not always listen to her requests—explained, "I need to work with people to get them to do things." This, she elaborated, required her to regularly check in with them and provide suggestions and advice. Similarly, manager Erica, from above, emphasized that knowing employees personally helped her navigate disagreements: "It's important for me to know my employees personally, so that if there is a problem later I know the person." Interacting regularly bred familiarity, and potentially mutual respect. Ultimately, women managers viewed interactions with employees as necessary to effectively supervise.

Pattern of Interaction. These managers tended to engage with employees by regularly checking in with them. During these check-ins, managers observed employees' work, asked if there were any problems employees were encountering, and offered help if needed. As I describe below, such a pattern of interaction ultimately allowed them to both gather and provide information, gently cajole them rather than giving direct orders, and—over time—get to know them personally to cultivate a cooperative relationship. Manager Lori explained that she tried to check in on her employees one or more times each day. As she noted, "I am always popping in on my staff." During these interactions, Lori aimed to get a sense of how her staff's work was progressing, and to offer them help if needed. She explained, "I'll ask, 'How is work going?

What challenges are you encountering? How can I help?'" In a typical example, Lori stopped by her employee Cameron's office and asked how he was doing. After chatting for three minutes about Cameron's wife's new job, Lori asked about how his work was progressing. On this particular day, Cameron explained that he was not sure how to handle a client with whom he had recently started working. Lori offered suggestions, which she had heard from others, on how to handle the client. Cameron nodded in agreement at her suggestions. Through such interactions, Lori came to learn about and provide information to her employees, and to cultivate personal relationships through which she could gently cajole them.

Similarly, manager Cheryl regularly checked in with her employees. She explained, "I'm checking to see if my employees are facing any challenges, and if they are, I'm going to actively help to resolve them." One Tuesday, she dropped by her employee Dean's office and asked how he was doing. As Dean described his work progress, Cheryl noticed that he was working slowly relative to his normal pace. At this rate, Dean might not finish his tasks by the client's deadline. So, she suggested he reach out to one of her other subordinates to assist with some of the technical aspects of his work: "Maybe Veronica can help and get this work done." Dean nodded in agreement, and Cheryl left. After the incident, she noted, "I'm helping Dean unpack who can help him." She was connecting him to Veronica, so that he could complete his work tasks in a timely fashion. Like Lori, it was through such interactions that Cheryl came to learn about and provide information to her employees, and to cultivate personal relationships through which she could gently cajole them.

Temporality. These managers frequently interacted with employees as they tried to detect problems and offer help. Manager Tiffany explained, "I try to talk to my employees every

single day." One Tuesday she interacted with her employees on 24 separate occasions, talking to each staff member at least once. In these conversations, she asked employees how their work was going and suggested resources they could use when they identified difficulties. Manager Rebecca similarly stated, "It's useful to have a conversation with each employee every single day." One Wednesday, she checked in on her employees 17 times, talking to almost all of her employees at least once. During these conversations, she identified—and offered help with—problems related to employees' workloads, writing skills, technical work, client presentations, and client relations, often drawing upon conversations she had had with other subordinates. Managers Tiffany and Rebecca also both exchanged over twenty emails with their employees on any given workday. These managers frequently interacted with employees.

These managers also often interacted with their employees spontaneously as they tried to help with problems. Manager Erica noted, "Each day, I poke my head into my employees' offices. Not long enough to distract them from their jobs, but just so they can let me know things." One day, she swung by her employee Zachary's office and asked how he was doing. Zachary explained that he was dealing with a difficult client, and Erica described to Zachary what she had heard about the client from other employees. Similarly, manager Lisa explained how she often dropped in on her employees when they were working in their offices, joking, "It's probably pretty good exercise to walk to their offices so often." She dropped by her employees' offices 10 times on one Thursday. In one typical example, she walked to her subordinate Martin's office to ask how his work was going. Martin replied that he needed to find another employee with a particular expertise to help him with his work. They chatted for five minutes as Lisa suggested two employees with the relevant expertise who might be able to help Martin. She walked to Martin's office again, later that day, when she identified another

employee who could also help him. These managers often interacted with their employees spontaneously.

Women managers tended to prefer synchronous interactions so that they could more promptly address and resolve problems. Manager Brenda, for instance, stopped by her employee Carrie's office several times on one day to discuss some difficulties with a project back-and-forth, avoiding a more prolonged back-and-forth email chain. As Carrie explained, "Brenda does in-person meetings as often as she can." Similarly, when it came time to chatting about employees' work, Denise almost always tried to find time to talk rather than simply emailing or messaging back-and-forth at a more delayed pace. While she used email for some interactions—such as setting up meeting times—in-person, synchronous interactions were her "go to." On the whole these managers preferred synchronous interactions.

Spatiality. These managers generally interacted with employees when both parties were at the office to observe any problems and offer help. Manager Amy explained, "I try to have face-to-face with my staff at least once a day… It's good to have face-to-face time with employees." She walked to her employees' offices each day to say hello if she did not run into them in the halls. She explained that through these congenial in-person interactions she hoped her staff would see her "as a person, not a paper pusher" and know that she was genuinely trying to help them. Manager Jennifer almost always talked to her employees in person because she could see their facial reactions, which helped her tell how their work was going. As she explained, "There are certain things you can only find out if you talk to staff in person." Earlier that day, she dropped by employee Lucas' office to see if he was struggling with his work. She explained, "When I was checking in with Lucas, I was looking at his face to see if he was

concerned. I wouldn't have been able to do that if I emailed him. That matters a lot because I don't want things to fester." These managers generally interacted with employees when both parties were at the office.

Women managers also tended to interact with employees in person, rather than through phone, email, or instant messaging, because this helped them to observe problems and offer help. As manager Lisa explained:

> My employees should absolutely come talk to me in person. I don't want them to send me an email or call me when they are down the hall. I prefer to see the person. I can get a lot of information from their expression and their body language. For instance, if someone is behind on something I can't really tell if they are slacking off or just telling me what I want to hear. If I see them, you get a lot of information just from body language. It's also easier to get agreement on something if you talk to the person face to face than if you talk to them over the phone.

Manager Kathleen similarly placed a whiteboard on her office door where she wrote down every time she would be out of her office. The idea, she explained, was that employees could read the board and know when to return to talk to her face-to-face, rather than sending an email. Women managers tended to interact with employees in person.

MANAGERS' RESPONSES TO FLEX-IT

Managers' approaches to interacting with employees shaped how they responded to Flex-It. After the policy was introduced, men managers tended to continue to interact with employees where and when it was mutually agreeable. They allowed subordinates to use Flex-It. In contrast,

women managers tended to find that Flex-It made it more difficult for them to engage in frequent, spontaneous, and in-person interactions with employees. They opposed the policy.

Men Managers Accept Flex-It

Men managers tended to passively support Flex-It, reflecting the fact that the policy allowed them to continue to interact with employees at mutually agreeable times and places. Manager Gerald explained, "I have employees who use Flex-It and it's fine. Everything is basically the same for me as before… Even with Flex-It, when people have questions, they can call or come in and see me." Manager Samuel stated pointedly, "I have no concerns about Flex-It. There have been no challenges." While he now talked on the phone with his employees more than previously—"I might now have people call into a meeting with me instead of coming in person"—subordinates still continued to request help, and he continued to provide it. Manager Edward likewise stated, "I don't think Flex-It causes any difficulties." When employees wanted to talk to him, they continued to book meetings at times and places that worked for both their schedules. These managers maintained their regular pattern of interacting with employees regardless of Flex-It.

Notably, these managers did not voice concerns that Flex-It would undermine employees' availability and commitment, which seemed to reflect their established views of employees as independent professionals capable of managing and overseeing their own work schedules. Manager Jim, for instance, explained jokingly that he viewed his employees as "big boys and girls" and did not need him overseeing where and when they worked. Manager Timothy similarly told his employees, "Look, you're an adult. I trust you. Just manage your time." Of course, these managers' view of employees as "independent" was interrelated with the fact that

they rarely felt the need to interact with subordinates. For instance, Scott, as described above, waited for them to approach him rather than reaching out to them directly. In his view, this meant he was respecting their independence as professionals: “My employees have ownership over their projects.” In sum, these managers did not voice concerns that Flex-It would undermine employees’ availability and commitment, which seemed to reflect their established views of employees as independent professionals.

Accordingly, these managers allowed employees to enroll in the flexible work policy and experience more control over where and when they worked. When employee Curtis told his manager Brad he planned to use Flex-It, Brad simply said, “That’s fine.” And now, using Flex-It, Curtis had more control over his time: “With Flex-It, I decide how long I work. If I want to break up the day and go to the gym for two hours or go to the grocery store or take a nap, I can do that now.” He could also work at home more regularly: “I can now decide to work at home and not commute.” Employee Samantha similarly explained that her manager Carl did not care that she used Flex-It. Now, using the policy, she had more control over where and when she worked: “With Flex-It, my workday is just more fluid. Today I might work seven and a half hours. Before Flex-It, I often had to put in leave to do that. Now it’s just my time… And I'm even working from home more now too.”

While Flex-It benefited employees in a variety of ways, Flex-It particularly benefited caregivers—who were disproportionately women—in their management of work, childcare demands, and household responsibilities. Employee Monica—who worked for manager Jacob—explained, “With Flex-It, I like being able to work at home if my kids need me. Like if they are sick or have the day off from school.” While her children could mostly take care of themselves, she wanted to be able to check in on them. Similarly, employee Courtney—who worked for

manager Troy—noted, “Flex-It has been great for my family. For example, I often work from home, and I usually work an extra hour or so. Then I can work a half day every week and spend more time with my baby. She’s just so precious at this age. I could really use an extra couple of hours staring at her face [laugh]… Flex-It helps a lot.”

Workers appreciated these managers’ support of Flex-It, viewing them in a more positive light. Employee Robin praised her manager Gerald for being “wide open” to her using Flex-It. Similarly, employee Jay explained that he appreciated manager Phillip being “very understanding” when he wanted to use the policy. Employees’ praise of men managers’ Flex-It support was notable because, more broadly, workers tended to have a mixed experience with men managers. On the one hand, workers who regularly reached out to their managers generally liked their managers. Employee Trevor—who, as described above, regularly set up meetings with manager Donald—noted how helpful Donald could be: “He helps me, and bridges any connections or difficulties I am having.” On the other hand, those who did not regularly connect with their managers generally viewed their managers as distant and aloof. Olivia also worked for manager Donald—but did not regularly reach out to him—and found him to be uninvolved: “I have a manager with a management style that doesn’t provide me with any support. He does not have a hands-on style. I am not super comfortable talking to him. He has his door open, but he doesn’t wander the halls, and so I don’t talk to him that much.” As in this example, it was often men employees who felt more comfortable and confident reaching out to men managers, while women employees experienced less ease in doing so. This, of course, seemed to contribute to and reinforce the gendered organizational processes already at play in STEMO: men managers connections to and helping of more senior men, while women employees tended to receive less technical or client-facing task assignments from these same men managers.

Women Managers Oppose Flex-It

Women managers tended to oppose Flex-It. During the meeting when Flex-It was first introduced to managers, three women exclaimed that they did not want their employees to use the policy. Brenda, the first, exclaimed sharply, "We don't want to encourage the use of Flex-It." Rebecca then remarked, with anger in her voice, "We should be able to stop people from using it." Jennifer offered similar remarks. After the meeting, Kathleen complained directly to the Flex-It committee, arguing that the policy should not be rolled out.

Women managers tended to oppose Flex-It because it allowed employees to work at a broader range of times and places, and therefore limited the frequent, spontaneous, and in-person interactions that they viewed as essential to their jobs. After manager Jennifer openly voiced dissent at the management meeting, she privately elaborated upon her concerns. With anger in her voice, she explained, "Flex-It takes time out of the day when you can more or less count on staff being around to meet and talk. They can now work later in the evening, for instance." She noted the performance implications for her unit: "It could become a zoo in my unit… Flex-It is making my job harder, and it's already hard enough." Similarly, manager Rebecca elaborated upon her dislike of Flex-It: "Reducing the hours people need to be here at STEMO is hard on managers like me… I need to check in with people." Without these interactions, her unit's performance would suffer: "I'm trying to have my unit produce a quality output. To do that, I need to stay in contact with my employees." Like Jennifer, Rebecca was concerned she would no longer be able to effectively manage her unit with Flex-It in place. While Rebecca could hypothetically work across all subordinates' schedules, this was not practically achievable: "I

couldn't be available to talk and meet with fourteen employees across fourteen different schedules."

Accordingly, these managers limited employees' use of Flex-It, and by extension, limited their schedule control. They only allowed employees to use Flex-It for select schedules changes, and only with their explicit permission. Managers generally did this in one of two ways. First, some allowed employees to enroll in Flex-It but required them to ask for permission anytime they wanted to use the policy, and then would often reject employees' requests. As Megan explained, "My manager Lisa made it pretty clear that you need to get her approval every time you do something that uses Flex-It. Having to send an email and get approval for it is in contrast to what it's supposed to be." Megan asked Lisa if she could leave work early one day, and Lisa said no. Megan's coworker, Krystal, recounted a near-identical experience with Lisa. One employee described how she could use Flex-It only if she asked manager Pamela: "You need to let Pamela know ahead of time, like a day before." Pamela almost always said no to the employee's requests to work at home. These managers required subordinates to ask for permission whenever they used Flex-It, and they often did not accommodate subordinates' schedule changes.

Second, some of these managers allowed employees to use Flex-It's new time bands to select a new set schedule, but did not allow employees to select or diverge from this schedule without their explicit approval. Manager Kathleen's employee Joshua explained:

> We have been heavily discouraged by [Kathleen] from using Flex-It. I don't know anyone in my unit using Flex-It in a meaningful way… I think part of the Flex-It ideals is flexibility to meet changing schedule needs. I still don't think that is really accepted. It is

only if I consistently change my workhours, that's okay. I think if I was to start switching that up and doing different things, questions would come up from Kathleen.

These schedules were very similar to workers' previous schedules. Two employees in manager Brenda's unit, for instance, now worked 6:00am to 2:30pm instead of 6:30am to 3pm. Manager Tiffany's employee Stacey explained, "My schedule doesn't look any different than before Flex-It. It is pretty much the same." She left work early once every two weeks. Tiffany had not allowed Stacey to change her schedule further. In sum, these managers routinely limited employees' use of Flex-It, and by extension, their ability to choose where and when they worked.

It is important to note that while women managers opposed Flex-It, on the whole, employees appreciated their more interactive approach to management which they often interpreted as supportive and helpful in their professional growth. As Joy explained about manager Pamela, "I like working with my boss, I think she's a fantastic mentor. I feel like I am like growing professionally and as a person. I'm finding my work rewarding. I'm getting good skills.… I like Pamela's general approach." Similarly, Clayton praised his manager Jennifer, noting, "They say that good managers talk to everyone in their unit. Jennifer already does that." However, women managers' limiting of Flex-It ultimately weakened their relationship with some of their subordinates. Employee Joshua—who, as described above, was blocked from fully using Flex-It by his manager Kathleen—explained with frustration: "Why does she even care? My customer is in a different state, so it doesn't matter where I sit. I could be in a house in California or a trailer in Wyoming. It doesn't matter as long as I have wi-fi. My customer doesn't care." Bothered by Kathleen limiting his use of Flex-It, he now sometimes avoided her, for instance, by creeping by her office door. Similarly, employee Kendra explained with anger in her voice regarding manager Brenda limiting her use of Flex-It: "It is very frustrating… This new schedule

[Flex-It] offers flexibility… It is not fair that I cannot use it." Annoyed, she pulled away from her relationship with Brenda, and ultimately transferred out of her unit. Of course, as employees such as Joshua and Kendra became frustrated with women managers' actions and pulled away from their relationships with them, this only reinforced the need of women managers to try to seek out and cultivate relationships with their employees.

VARIATIONS IN MEN AND WOMEN MANAGERS' EXPERIENCES

Above I described the gendered patterns in men and women managers' experiences at STEMO and responses to Flex-It. However, experiences of gender are multifaceted and not fully determinative of individuals' organizational experiences. In this section, I examine in more detail the managers who did not follow the patterns described above.

Men Managers Who Oppose Flex-It

Five of the 32 men managers opposed Flex-It and did not fully implement it in their units. These men fell into one of two categories. First, two men managers—Roger and Raymond—believed that Flex-It would undermine workers' ability to be available for client responses. As Roger noted, "Our workload is fairly steady, but you never know. We could all of a sudden have a hot item… I really need to have people working every day from 9am to 5pm." Because Flex-It meant that employees might not be available during those precise hours, Roger limited his staff's use of the policy: "An employee wanted to work shorter hours tomorrow using Flex-It. I told her no." Roger explained that—while he could coordinate his employees' individual work times to make sure at least one person was available—this was simply too much work. Raymond expressed a similar sentiment. It is worth noting that six other units served the *same customers,*

and none of these units' managers believed their unit needed such regular coverage. This suggests that Roger and Raymond's insistence of employee availability did not reflect the "actual" conditions of their employees' work, but rather, that requiring employees to maintain rigid hours was easier for them to supervise.

Second, three of the six men managers who identified as racial or ethnic minorities experienced difficulties cultivating recognized authority, and correspondingly, tended to interact more regularly with subordinates.[3] Manager Larry supervised a division which was 79% white men. When he asked them to attend unit meetings, they often skipped, which was a source of great frustration for Larry. He described how one employee did not listen to him when he requested the employee fill out some administrative forms. After describing the incident, he noted, "But it's not just that, it's things in general." Employees did not always respect his requests. Correspondingly, he adopted a more checking-in approach to management: "If I'm here, and I know my employees are here, then I just go and see them." He added, "It makes things easier for me."

Women Managers Who Accept Flex-It

Four of the 16 women managers supported and fully implemented Flex-It. These women had, despite the difficulties of being in a male-dominated profession, cultivated recognized technical expertise and adopted the more distant interactional approach enacted by most men managers at STEMO. Patricia, for instance, was an "internationally recognized expert" in her area of research. These days, her time was spent maintaining relationships with high-level clients. As a

[3] I do not provide details on these men's specific racial and ethnic identities here to protect their identities. Women managers who identified as minorities tended to have more difficult experiences at STEMO than white women, but because there were so few women managers in this category (three) I also do not provide details to protect their identities.

result, she was typically in meetings with current or potential customers for the majority of her work day. As one of her employees explained, “Patricia does not walk the halls.” But, when Flex-It was introduced, she embraced it and her employees used the policy regularly.

Notably, while men managers passively accepted Flex-It, these women managers tended to more actively encourage employees’ policy use. As manager Barbara explained, “With Flex-It, I am pretty liberal when it comes to where and when people work… I’m trying to give my employees a little bit more flexibility.” She emailed her unit about the policy, and spoke of its benefits at a unit meeting. Reflecting on variation in managers’ support of Flex-It, she noted, “I don’t know if it is a fear of a loss of control, why some managers think we still need to have these [scheduling] boundaries on subordinates.” While Barbara felt comfortable allowing employees to use Flex-It, other women managers feared precisely the “loss of control” that she highlighted.

ALTERNATIVE EXPLANATIONS

In Appendix II, I address several alternative explanations, regarding gendered differences in managers’ career trajectories and supervised units. As described in this appendix, I found that these alternatives did not explain my findings.

DISCUSSION

Figure 1 summarize this study’s findings while also offering an analytically generalizable model regarding how flexible work policies’ implementation, including how these policies shape and are shaped by gender inequalities. The generalizable components are the theoretical constructs—

demarcated with capital letters—as well the processes linking them—demarcated by italics. The other text in the figure displays the study's findings.

---Insert Figure 1 here---

The model has multiple levels of analysis: societal, organizational, intergroup, and individual. The model begins at the top of the figure, at the societal-level. Gendered norms, expectations, and attributions give rise to gendered processes within organizations. These processes play out at the organizational and intergroup levels, as managers and employees, and men and women, interact with one another. These processes then shape the distribution of resources within the organization. For instance, in this study, gendered norms around ideal work and masculine-typed work shaped task assignments and views of what was "acceptable" behavior for men versus women managers, ultimately informing how technical expertise, client relations, and recognized authority were developed by men and women at STEMO. At the individual-level, resources ultimately shape the conditions under which managers work, which then either enables or constrains managers' role enactment and their dependencies on others. In this study, differential resources meant that women managers focused on brokering and coordinating information, and gently cajoling and crafting relationships with subordinates, which requires frequent, spontaneous, and in-person interactions. In contrast, men managers focused on technical and client-related tasks and did not try to cultivate interactions with employees. They did not have temporal and spatial dependencies on employees.

Managers' responses to flexible work policies are shaped by their broader work and life experiences. In particular, gender norms and expectations also shape the extra-organizational experiences of employees in gendered ways, that—along with their experiences of gendered organizational processes—informs their commitment to furthering work-life and gender equity

issues. In this study, for instance, women managers' personal experiences led them to more vocally support improving work-life issues and gender equity at STEMO. Men, however, did not have such experiences, and did not frequently voice support for or concerns about these same topics. These responses to flexible work policies are either supported or undermined by managers' role enactment as well as the dependencies embedded within these role enactments. In this study, women managers opposed Flex-It despite their commitment to improving work-life and gender equity issues because of their dependencies on workers. In contrast, men managers—although they did not voice strong commitment to improving work-life management or gender equality—felt no conflict between Flex-It and their day-to-day managerial role enactment.

Managers' responses to these policies affect their implementation and employee use, and ultimately, broader understandings of work and gender. In particular, managers' responses to flexible work policies either allow for or limit employees' use of these initiatives, which can lead to changes in employees' work and life experiences. In this study, employees who used the flexible work policy had greater schedule control and were able to better manage work and life activities. Employees' lived experiences of such initiatives ultimately reinforce or ameliorate broader views of gender norms. In this study, for instance, women employees tended to use the flexible work policy more than men for family care, potentially contributing to the belief that such care is associated with women (see also Padavic, Reid, and Ely, 2020). Managers' responses to these policies also reinforces or ameliorates gendered organizational processes within the organization. In this case, for instance, managers who supported these policies signaled to employees—including women, who disproportionality performed care work—that more flexible ways of working and spending family time were acceptable.

How managers enact their role may reinforce or ameliorate gendered organizational processes. At a broad level, managers' role enactment may reinforce or ameliorate these processes. At STEMO, women managers interacted with and helped employees of all genders. In contrast, men managers tended to help men employees more, developing stronger relationships with them, and contributing further to the gendered division of technical skills and client relations. Additionally, managers' responses to flexible work policies affects employees' views of them, potentially reinforcing or ameliorating gendered organizational processes. In this study, employees appreciated men managers' implementation of these initiatives, which then reinforced their respect for men managers. In contrast, some employees became frustrated with women managers' opposition to Flex-It, reinforcing their disrespect.

Contributions to Research on Flexible Work Policies

This study contributes to literature on flexible work policies in four ways. First, it expands our understanding of the flexibility paradox, that is, why these policies fail to be fully implemented despite their proliferation across organizations. Previous literature has highlighted managers' expectations of availability and commitment as a reason for this failure, with the implicit assumption that if managers oppose these masculinized ideas then they will be more likely to support flexible work policies. In this study, I move beyond managers' preferences and ideologies to show how managers' support for flexible work policies also reflects the ways in which gendered organizational processes shape managers' day-to-day role enactment. Broader structural inequalities must be accounted for when considering if and how flexible work policies can be successfully implemented in organizations.

Second, this study enriches the broader discussion regarding whether women or men managers are more likely to support and implement flexible work and work-life policies, as well as equity initiatives more broadly. Previous literature has mixed findings, arguing that mixed results reflect broad differences in organizational contexts (e.g., size) or methodological approaches. In contrast, this study highlights the need to pay attention to how gendered organizational processes unfold within organizations. Instead of thinking about managers' support as arising purely from their active interest in or indifference to helping women, there is a need to look at how gender enables and constrains managers' day-to-day actions.

Third, these findings contribute to the growing literature which calls for a systematic rethinking regarding how policies aimed at improving diversity, equity, and inclusion are implemented. Many scholars show that these policies—if not thought out—may not change, or in some cases even worsen, organizational inequality (e.g., Castilla and Benard, 2010; Bourdeau, Ollier-Malaterre, and Houlfort, 2019; Leslie 2019). This is the case for flexible work policies, which researchers argue may reinforce gender inequity in the long-term by reifying "work-family" as women's responsibility rather than a broader problem created and sustained by organizations (Padavic, Ely, and Reid, 2020). At STEMO, it seemed that—at least in the short-term—the flexible work policy improved women employees' work experience by helping them manage work and life activities. However, because the initiative did not consider the broader system of gendered inequalities in which it was embedded, it was ultimately not implemented in a large portion of the organization. This case serves as yet another example of how diversity, equity, and inclusion initiatives can present a false hope if careful attention is not paid to their design and implementation.

Fourth, this study highlights how flexible work policies affect managers' day-to-day work experiences, a topic that has received relatively less attention. In particular, while previous research highlights managers' role in policy implementation (e.g., Lamond, 2000; Errichiello and Pianese, 2016) it is also important to think about the effects these initiatives on managers' broader effectiveness and wellbeing. As shown in this paper, there may gender differences in if and how managers experience negative impacts from these policies. Relatedly, this study builds on research that suggests managers may limit flexible work policies if they are seen as "disruptive." Previously, scholars have theorized that "disruption" refers to a policy's prevention of the actual completion of subordinates' work, although these scholars often do not have direct evidence of mechanism (Powell and Mainiero, 1999; den Dulk and de Ruijter, 2008; Poelmans and Beham, 2008). This study suggests in contrast that—in at least some cases—what managers are reacting to is concerns about disruption to their role enactment, rather than the performance of employees' day-to-day tasks.

Contributions to Research on Gender Inequality

This study contributes to literature on gender inequality in four ways. First, I identify how women managers may try to create and sustain managerial resources through day-to-day interactions with employees. This is, as far as I know, the first study to show in detail how women managers creatively try to address the constraints they face at work through adopting a particular approach to interacting with employees. Relatedly, I show how these gendered differences in managers' day-to-day actions are produced and reproduced by gendered organizational processes. While current work on women managers tends to focus on either the gendered challenges they face (e.g., Dutton et al., 2002; McDonald and Westphal, 2013) or

gendered differences in managerial approaches (e.g., Ashcraft, 1999; Kark, Waismel-Manor, and Shamir, 2012) here I attempt to bring our focus to the connection of these two sets of gendered experiences. In doing so, I link the extensive literature on gendered challenges in the workplace with the observed difference that women and men often engage in different "leadership styles," "managerial styles," or more broadly, enactments of their managerial role.

Second, this research makes explicit the connection between four gendered forms of inequality—perceived legitimacy, perceived expertise, differences in connections, and ideal worker expectations—which have previously been theorized separately. In particular, I show how these forms of inequality reinforce one another, creating and sustaining a broader system of gender inequality. Notably, all three of these forms of inequality hold that white men symbolize the standard of organizational action.

Third, these findings highlight another way in which women managers may be disadvantaged compared to men managers, namely, gender differences in interdependencies with employees. In this study, for instance, women managers had to spend significant time interacting with employees face-to-face, reflecting their relative dearth of managerial resources. In contrast, men managers generally did not feel compelled to make themselves readily available for face-to-face or frequent interactions with subordinates; they remained relatively independent of their workers. Women managers may be disadvantaged, then, because their day-to-day actions may be relatively more dependent on their employees.

Finally, these findings add to research regarding what is often perceived as more senior women's mean or cruel treatment of more junior women (Derks, Van Laar, and Ellemers, 2016). This work suggests that such actions (e.g., in this case, women managers opposing policies that could arguably benefit women) may not be performed with any malicious intent or ill-will, but

rather, are an indirect result of broader gender inequalities in which both managers and employees are embedded. Women managers may want to help women employees, but be unable to do so because of these structural inequalities.

Boundary Conditions, Limitations, and Future Directions

As a qualitative study of one organization, these findings have several boundary conditions. Most notably, these conditions highlight the need to think about this study as emphasizing the need to pay attention to gender dynamics and their relation to organizational processes, actions, and norms when adopting flexible work policies, rather than viewing this study as categorically stating—which it does not—that "women managers oppose flexible work policies."

At STEMO, a particular set of challenges constrained women managers' day-to-day actions, specifically, difficulties developing technical expertise, client relations, and recognized authority. These challenges are consistent with those identified in other studies of professional and managerial women (e.g., Kanter, 1977; Williams and Dempsey, 2014; Cardador, 2017; Alegria, 2019). However, gendered organizational processes vary across organizations (Acker, 2009). Therefore, in dissimilar organizational contexts, different or additional constraints could be more prominent, which could lead to women and men managers engaging in different role enactments and ultimately varying in their support of flexible work policies. For instance, future research could look at how women managers act when organizations are female-dominated rather than male-dominated, or in countries with different overarching gender norms compared to the United States.

Men managers at STEMO, while not actively supporting work-life management or gender equity issues, also remained open to employees' use of flexible work policies. In

particular, they did not view these policies as undermining workers' availability nor commitment to their work. This is in line with other recent research, which suggests that managers view workers as independent professionals capable of setting their own schedules, perhaps reflecting a broader shift in norms regarding work and life boundaries (e.g., Kelly and Moen, 2020). However, if managers view flexible work policies as undermining workers' commitment and availability, then we would not expect managers to support and implement flexible work policies even if they did not face any gendered constraints. This was the case, for instance, with managers Raymond and Roger in this study, as described in the findings section.

The previous two boundary condition above are with regards to this paper's findings, rather than the more generalizable model I offer above (i.e., the model accounts for these possibilities). However, the model's focus on gender means that it neglects how other inequalities inform managers' responses to flexible work policies. While my findings suggest that race in particular may place an important part in shaping managers' experiences, because there were so few minority managers in this setting I am not able to provide detailed insights on the role of race while also protecting participant confidentiality. Intersectional identities are also important, but not examined in this study because of its high proportion of white employees and managers. Future studies should examine organizations—or groups of organizations—that provide greater insights into the role of other inequalities on managers' implementations of flexible work policies.

In this paper, I have endeavored to show the interrelation between individual, intergroup, organizational, and societal-level processes in shaping managers' actions. Nonetheless, there is a need across studies on flexible work policies to more explicitly focus on the connection between individuals and structures, and the micro and the macro. A practice theory lens—while not

adopted in this study—would be one way to examine these interrelated phenomena (Janssens and Steyaert, 2019; Janssens and Steyaert, 2020).

Practical Implications

This study holds two key insights for managers and other organizational leaders. First, this study holds important lessons as organizations consider changing their organization's flexible work policies in the wake of the COVID-19 pandemic. Employees' expectations of and demands for these flexible work schedules has only increased during the pandemic, and this may push more leaders to adopt flexible work policies in their organizations. However, while during the pandemic many managers felt an ethical, moral, or legal responsibility to allow for remote work, these pressures will likely be alleviated when the pandemic ends. How can leaders assure managers fully implement flexible work policies? This study suggests that when designing, adopting, or attempting to institutionalize these policies in a post-pandemic world, attention must be paid to how managers enact their roles (e.g., how they interact with employees), and how inequalities inform these enactments.

Second, this study highlights that actors who are designing and adopting initiatives aimed at improving gender inequalities—such as the flexible work policy at STEMO—need to consider the broader system of inequalities in which those initiatives will unfold. For instance, if organizational leaders want to encourage managers to recruit women returning to the workforce after taking leave to care for children, they should consider the gendered implications of this initiative on managers. If women managers' authority is more questioned (difference in resources) then they may need to more carefully check employees' work (differences in managerial actions) which requires coordination with employees (differences in dependencies).

Therefore, an influx of employees less familiar with their unit's work—versus recruiting internally or from similar firms—could put an extra burden on women managers as compared to men managers. This, in turn, could generate resistance from women managers, making the hiring initiative ineffective. Therefore, when designing and adopting initiatives aimed at improving gender inequalities, actors need to consider the broader system of inequalities in which those initiatives will unfold

CONCLUSION

Despite the proliferation of flexible work policies across organizations, these policies are often not successfully implemented. A prominent explanation for this failure is that managers limit employees' policy use because it undermines employees' availability and commitment. The implicit assumption is that if managers oppose these "ideal worker" expectations, they will be more likely to support and fully implement flexible work policies. In this study, I found that the managers who were most explicitly supportive of reducing overwork and acknowledging family responsibilities—in this case, women managers—were also the most likely to oppose the policy's full implementation. I demonstrated that this was because these managers faced a series of gendered constraints that made it difficult for them to implement the flexible work policy while also enacting their managerial role. I contribute to the literatures flexible work policies and gender inequality.

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Table 1. Schedule Control Before Flex-It Versus After Flex-It's Proposed Changes

	Before Flex-It	Flex-It's Proposed Changes
Summary	Employee has limited schedule control.	Employee has greater schedule control.
Work hours per day	Little control over number of work hours per day: Employees must work at least eight hours per workday.	Greater control of number of work hours per day: Employee can select number of work hours each workday, as long as they work at least 80 hours per two-week pay period.
Work time band	Smaller work time band and more core hours: Employees must complete their eight hours of work between 6:30am and 6pm on weekdays, and must work during core hours of 10am to 3pm every weekday.	Larger work time band and fewer core hours: Employees can work between 6am and 8pm on weekdays, and core hours are reduced from 10:30am to 2:30pm on Monday to Thursday (i.e. no longer includes Fridays).
Breaks	Limited breaks: Employees are not allowed breaks besides lunch.	More breaks: Employees can take as many breaks as they like outside of core hours.
Location	Limited control over location of work: Employees can work at home two days per week maximum.	Greater control over location of work: Employees can work at home at any time, as long as they work in the office twice a week during core hours.

Table 2. Unit Details and Data Collection by Unit and Manager

		Details			Data Collection			
Across all units	**Unit**	**Manager Gender**	**Managerial Resources**	**Support and Implement Flex-It and Employees Gain Schedule Control?**	**Observations of day-to-day activities**	**Informal conversations**	**Formal interviews**	**STEMO-wide email responses**
↑ Interviews and observations of Flex-It committee. Observations of Flex-It trainings and feedback sessions.	1	M	More	Yes	Very extensive	Very extensive	9	10
	2	W	Less	No	Very extensive	Very extensive	9	9
	3	W	Less	No	Very extensive	Very extensive	9	6
	4	W	More	Yes	Very extensive	Very extensive	9	3
	5	M	More	Yes	Very extensive	Very extensive	8	14
	6	M	More	Yes	Very extensive	Very extensive	5	9
	7	M	More	Yes	Very extensive	Very extensive	4	16
	8	W	Less	No	Very extensive	Very extensive	4	7
	9	W	Less	No	Very extensive	Very extensive	3	14
	10	W	Less	No	Very extensive	Very extensive	3	4
	11	M	More	No	Very extensive	Very extensive	3	2
	12	W	Less	No	Very extensive	Very extensive	2	17
	13	M	Less	No	Very extensive	Extensive	9	0
	14	W	More	Yes	Very extensive	Extensive	7	0
	15	W	More	Yes	Very extensive	Extensive	6	3
	16	M	More	Yes	Very extensive	Extensive	6	2
	17	W	Less	No	Very extensive	Extensive	5	13
	18	W	More	Yes	Very extensive	Extensive	5	5
	19	M	More	Yes	Very extensive	Extensive	5	2
	20	M	More	Yes	Very extensive	Extensive	5	1
	21	M	More	Yes	Very extensive	Extensive	4	6
	22	M	Less	No	Very extensive	Extensive	3	5
	23	M	More	Yes	Very extensive	Extensive	1	8
	24	M	More	Yes	Extensive	Very extensive	5	9
	25	M	More	Yes	Extensive	Extensive	4	7
	26	W	Less	No	Extensive	Extensive	3	6
	27	M	More	Yes	Extensive	Extensive	3	5
	28	W	Less	No	Extensive	Extensive	3	4
	29	M	More	Yes	Extensive	Limited	5	9
	30	M	More	Yes	Extensive	Limited	2	5
	31	M	More	Yes	Extensive	Limited	1	6
	32	M	More	Yes	Limited	Extensive	3	9
	33	M	More	Yes	Limited	Extensive	3	3
	34	M	More	Yes	Limited	Extensive	2	1
	35	M	Less	No	Limited	Extensive	2	2
	36	W	Less	No	Limited	Extensive	1	2
	37	M	More	Yes	Limited	Limited	3	11
	38	M	More	No	Limited	Limited	3	5
	39	M	More	Yes	Limited	Limited	3	2
	40	W	Less	No	Limited	Limited	2	6
	41	M	More	Yes	Limited	Limited	2	5
	42	W	More	Yes	Limited	Limited	2	4
	43	M	More	Yes	Limited	Limited	1	5
	44	M	More	Yes	Limited	Limited	1	4
	45	M	More	Yes	Limited	Limited	1	2
	46	M	Less	No	Limited	Limited	1	2
	47	M	More	Yes	Limited	Limited	1	0
	48	M	More	No	Limited	Limited	1	0
↓	**Total**				**500 hours (approx.)**	**500 (approx.)**	**182**	**270**

Reaching Saturation Across Cases ↓

Note: Very extensive observations (e.g., meetings, shadows) are 18 hours or more, extensive are between 9 hours and 18 hours, and limited are between 1 and 9 hours. Some observations of units overlapped (e.g., annual picnic). Very extensive informal conversations are 20 or more conversations, extensive are between 5 and 20, and limited are between 1 and 5. I omit managers' names from the table to maintain confidentiality, as it was visible to workers which units I spent more versus less time in and by including names workers could link managers' identities to their quotes in the body of the paper.

Table 3. Gender Differences in Managers' Resources

Men Managers	Women Managers
Technical expertise and client connections: More developed technical skills and client connections, in part because of early segregation in to more skilled tasks that men embrace and eventually seek out. Example 1: Before his promotion to manager, Alan was described by a senior employee in his unit as "pushing the envelope with [specialty] technology and identifying many unique applications of it." After Alan was assigned by a senior employee to one very high-profile project that relied on this particular technology, he was asked on—and agreed enthusiastically to participate in—three other particularly high-profile projects before his promotion to manager. Example 2: Manager Ron had sought out high profile projects earlier in his career. The end result was that he had overseen projects for a wide breadth of customers, including ones he described as "high-impact" and "high-visibility." Such projects also helped him to develop his technical skills, which he continued to nourish through project work after his promotion to manager. His subordinates described him as having "technical expertise" in four areas of work highly relevant to their unit. Example 3: Early in his career, manager Jeremy had been assigned and performed many client-facing tasks under the tutelage of his manager. He continued to be engaged in these tasks today. When Jeremy had one potential client visit STEMO, he cleared out his afternoon to host them. First, he met with them in a conference room for half an hour, outlining potential research project ideas based on overlap between his lab's work and the client's interests. Then, over the course of an hour, he showed the visitors around his unit's labs, demonstrating recent innovations the lab had developed. At the end of the meeting, he recapped potential research areas he thought his unit could help the client with, now referencing particular parts of his unit's lab.	**Technical expertise and client connections:** Less developed technical skills and client connections, in part because of early skill segregation that some women eventually adapt to and seek out. Example 1: Early on in her career, manager Lori was assigned—and eventually sought out—many project management tasks such as helping to organize project teams across her unit. She described: "I chose to lead a very large project that had me using a lot of people skills to build a team." Regarding her switch to management, she explained, "I went into management because I realized, I'm responsible for managing half of the unit, I might as well manage the whole unit." She added, "My managerial skills were much stronger than my technical skills before my promotion, and they still are." Example 2: Manager Amy described, "Before my promotion, I was a [research specialist] and then I took on some more managerial tasks. That's when I realized I hated what I was doing but I loved being a manager, helping other people, mentoring them. But I hated the work, and I was coming to work dreading what I was doing. So when the manager position opened up, I jumped ship. I just couldn't stand doing [technical] work anymore." Example 3: Early in her career, manager Brenda had been assigned fewer client and technical-related tasks. Correspondingly, she had adopted a more information-brokering approach to management. When her unit was hosting its largest client, she asked her senior employees to help host. When one responded that meeting with the client would require some "field experience," Brenda replied that this is why she was asking the employee to present, rather than herself: "Yes, you might have a good sense of that." A second employee volunteered to "pull together" another part of the client presentation. Brenda asked a third employee to present for part of the meeting, noting, "I'm going to tap into her [expertise] more." She then asked a fourth employee "to fill in" the rest. Brenda was relying on her employees to take the lead on presenting technical work to and hosting the client.

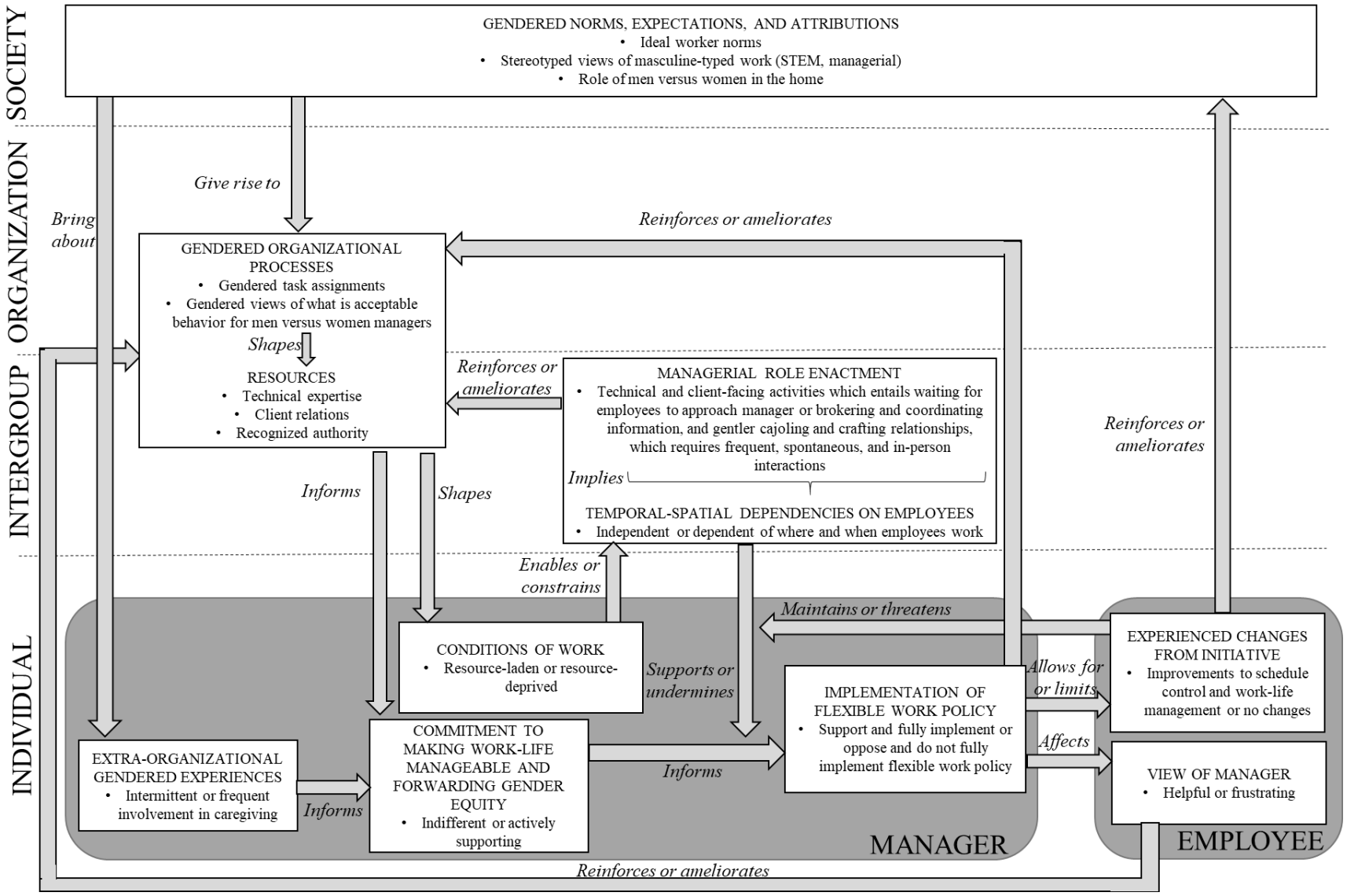
Men Managers	Women Managers
Authority: Often listened to and respected, reflecting employees' views of men's directedness and assertiveness as acceptable. Example 1: No one questioned or tried to push back against what manager Alan said, even when he was direct or assertive. Employee Arnav, for instance, found Alan often out of touch with his work: "He's not very involved in my project work on a day-to-day, month-to-month, or even year-to-year basis." However, when Alan gave him advice, he responded promptly. And when Arnav sent emails that included Alan, he always acknowledged his authority: "I put my division chief on the top of the email list. Just to make him feel good about his position. I have got to recognize the hierarchy, right?" Example 2: For most men managers, employee performance reviews were an annoyance because they took away time from other work. Manager Phillip, for instance, complained that he was spending his entire work week on reviews. Manager Jeremy similarly sighed and explained reviews were annoying because "they inevitably required working over weekends" to prepare. Employees of men managers, for their part, explained that while they did not always like their managers' assessments of their performance—and sometimes pushed back—they appreciated their managers' directedness in providing feedback. Example 3: Manager Matt was often late to meetings, but his employees always arrived on time. While some expressed frustration in private, no one questioned or addressed his regular lateness to him directly, instead accepting his ability to insert and then assert himself later in the meeting. In a typical example, Matt was ten minutes late. A room of eight employees sat and waited for him to arrive, instead of moving forward with the meeting. When Matt suggested an idea that his employee Brett privately thought was going to be too expensive for the client, Brett said nothing, instead nodding in agreement. Matt was listened to and respected.	**Authority:** Often disregarded and disrespected, reflecting employees' views of women's directedness and assertiveness as unacceptable. Example 1: Two of manager Kathleen's employees separately explained how she came off as rude and demanding gave them direct orders regarding how to approach their work (e.g., when to start it, how to tackle particular technical problems) and they often ignored these orders because they felt they were incorrect or inappropriate. While it was possible that Kathleen's advice was not appropriate regarding the particular examples they provided, her employees' a) views of her giving of directions as being inappropriate, and b) decisions to ignore what she suggested, were not observed in cases where employees viewed men managers as being wrong. Example 2: Many women managers described employee review season as something they dreaded. Although they were formally charged with providing employees' feedback, they were often questioned. Manager Amy explained, "It's never fun… It's so difficult to deal with the ones who aren't performing well. I hate the confrontation during that one-on-one and that part of management." Confrontation for her seemed to be particularly difficult because, as she explained, employees would sometimes refuse to accept her judgements: "It's a huge challenge for me in being a manager." Employees of women managers, for their part, explained that they did not like it when these managers provided "aggressive" feedback. Example 3: Manager Denise was generally on time to meetings, but was frustrated by her employees always showing up late despite her asking them to arrive promptly. To address this, she sent out several emails to everyone in her unit asking them to arrive on time. They did not, and her directedness in her email was not appreciated by her employees. However, the one time Denise was late to a meeting, it did not escape the notice of her employees, who grumbled to one another that it was annoying when she showed up late.

Table 4. Gender Differences in Managers' Interactions with Employees

Men Managers	Women Managers
Interpretation of Interactions with Employees	
Interactions with employees are optional, as focus of work is technical and client-facing work. Example 1: Manager Joe explained, "I do a lot of relationship building with clients." He typically spent most of his workday preparing for or in meetings with customers, allocating less time to meet his own subordinates. He noted that his employees did not need regular interactions with him because "they are independent-minded enough." While he did his own work, he expected his subordinates to carry out their tasks separately. From their view, several of his employees described Joe as absent. As one noted, "I mean Joe is like a great tragic figure. He's a really nice guy, but he's just so oblivious to what is happening in the unit. It's awful." Example 2: Manager Walter spent time performing his own technical work instead of interacting with his employees, viewing such encounters as less central to his day-to-day work. As his employee Melvin explained, "My manager is not real interactive with people in our unit on a daily basis. He more or less leaves you alone to take and do what you do and stuff like that." Interactions with employees were not central to how Walter supervised his unit.	Interactions with employees are essential to 1) broker technical- and client-related information, 2) cultivate authority and respect. Example 1: Manager Jennifer explained, "It's important that all of my employees are comfortable talking to me, so I can hear about things." Hearing about "things" allowed her to share technical and client-related information amongst her subordinates. Like other women managers, she sometimes connected employees directly with one another. For instance, when she heard from one employee that a client was upset with another employee's work, she told the second worker to contact the first. In other cases, she—like other women managers—tried to learn information from employees which they could then pass on directly. For example, after learning about a difficult client from one employee, she passed this information on to a second. Example 2: Manager Cheryl noted, "Typically if there is a problem with my employees' work, we have a conversation." She did not give them direct orders, but rather, talked with them one-on-one. Such interactions were a way for to help ensure employees' cooperation, rather than providing more direct orders.
Form of interaction	
Employee approaches manager with a problem, and then manager may help. Example 1: A client was upset with the work of two of manager George's subordinates. The subordinates reached out to George for help. George—who knew the client well—intervened and asked the client to consider the merits of the employees' technical approach. The client rereviewed the work, and decided they were happy with it. As one of the two employees explained after the incident, "George went to bat for me." Example 2: Manager Dale waited for his employees to approach him to ask for help. As employee Gabriel explained, "Dale leaves me alone unless I ask for advice. There are other people in our unit that ask for help more than me, so he spends more time with them. But I'll usually just do my work alone." In one example, Dale aided his employee Jaime when she asked for help on her client report. As he reported, "I did several reviews of her report draft."	Manager checks in to see if employee needs any help, and if so, offers to help the employee. Example 1: Manager Kathleen regularly dropped in on her employees. She asked them how they were doing, and how their work was going. As her employee Cody explained, "She likes to keep an ear to the ground. She wants to make sure our work goes well." When Cody encountered difficulties in his work, he told Kathleen, who often recommended he reach out to one or more particular employees with relevant technical experience. Example 2: Manager Brenda stopped by five of her subordinates' practice presentation for a client. After listening to the presentation for 45 minutes, she suggested that her employees presented their data in a different way that made their results clearer to the client. Brenda described a method that she'd seen some of her other employees use in an earlier client presentation.

Men Managers	Women Managers
Temporality	
At a frequency, time, and synchronicity that the employee prefers, provided this does not impede on manager's other tasks. Example 1: Employee Carlos connected with his manager Jack during Tuesday mornings, a time when they were usually both available. As Carlos explained, "I talk to Jack about issues that I'm having on my projects... I travel to visit clients a lot. But on Tuesday mornings we are usually both here and I'll try to go by his office and talk." Jack's other employees, however, met with him on the other four days of the week. Example 2: Employee Vince stopped by his manager Jim's office. He asked if Jim could attend a meeting where his project team would discuss their technical work. Vince wanted Jim's feedback. Jim replied he would come, but that he needed to "slip in and out" as he had to perform his own project work. Later that day, he came to the meeting five minutes late, attended half of it, and then left.	Frequent, spontaneous, and synchronous interactions with employee to detect problems and offer help. Example 1: Manager Amy tried to talk to each of her subordinates every day. She met with them so regularly that when Harold, an older employee who lived alone, did not come into work one morning she immediately noticed: "I know him. He lives alone. This job is his life." Harold soon called and told her he was in the hospital. She was so used to interacting with him on a daily basis that she immediately noticed his absence. Example 2: Manager Pamela tried to talk to each of her employees daily to understand how their work was progressing. As her employee Joy described, "I talk to Pamela all the time. She has a very open-door policy." Often Joy dropped by Pamela's office to talk, but Pamela also often visited Joy's office which was down the hall. Pamela had similar interactions with other subordinates.
Spatiality	
At a location and through means (e.g., phone, email, instant message) that is convenient for both parties. Example 1: Manager Troy often worked in his office, and was happy to have employees visit him there. But if it was easier for workers to speak on the phone he was fine with that as well. As his employee Alicia explained, "I'll just tell Troy, 'I'm going to call on my phone.'" She did so one Wednesday morning, right before she drove into work. On another day, she placed a call from her own office to Troy's. He never objected to her calling. Example 2: Manager Arthur had three employees whose offices were near his own. So, when they had questions, they usually stopped by his office. Arthur joked that talking to them in person made sense, as their offices were so close he could hear them through the walls anyways. With other employees, however, he generally talked on the phone or emailed instead since they sat at offices further away from his own.	At the office and in-person to detect problems and offer help. Example 1: Manager Cheryl regularly interacted with employees in person. She explained that face-to-face encounters allowed employees to disclose more sensitive information, which could help her to more fully understand if there were problems with their work. As she explained about a conversation she had with an employee earlier that day: "That information we discussed [regarding a client] was too sensitive to write in email." But now, she noted, she more fully understood the employee's difficulties with the client. Example 2: To facilitate face-to-face interactions, manager Tiffany regularly worked with her door open. As she described, "In general my door is open, unless I'm on a call or have someone in here for a meeting. I would say 75 percent of the time it is open." On one typical day, she only closed the door for three separate one-on-one meetings with her employees. An open door, she explained, allowed her to have richer, in-person interactions so she could get a sense of if employees were struggling with their work.

Figure 1. How Gender Inequalities Shape and are Shaped by Work-Life Policy Implementation



Appendix I. Data Analysis Details

This appendix provides details on more specific parts of my data analysis.

Details on Resources

In the body of the paper, I focus on differences in three key managerial resources: technical expertise, client connections, and recognized managerial authority. However, when examining gendered differences in managers' experiences, I also compared managers' experiences across a broader range of resources to examine if managers' experiences with these resources were similar. I ultimately confirmed this was the case.

First, I studied if managers had differential access to formal means of rewarding or punishing employees (e.g., through offering bonuses or firing employees). I found that women and men managers had similar experiences with regards to these formal means of incentivizing employee action. Second, I looked at managers' connections to other managers within STEMO, because it seemed plausible that men managers were more connected to peers than women managers. I found that while men managers tended to be friends with more men managers, women managers had developed a close group of women managers with whom they exchanged resources and information. Further, because STEMO had formalized much of its communication from senior leadership to managers (e.g., through required weekly meetings) as well as the formal resources managers had access to (e.g., through clearly defined policies that determined how much bonus pay could be allocated), differences in managers' peer connections did not seem to greatly inform if and how they interacted with employees. Third, I studied if there were differences in men and women's charismatic authority, that is, if employees viewed men as more compelling than women managers. While this seemed plausible to me, there was only one manager at STEMO who seemed to command a serious amount of charismatic authority—that is, who was respected because of his charming and inspiring personality. He also had extensive client connections and technical expertise, as well as recognized authority. Except for this manager, there were no marked differences in if or how charisma enabled women and men managers to interact with employees, although of course more broadly the conceptualization of charisma is highly gendered (Eagly, 2005).

This analysis was guided by several popular conceptualizations of power and control. I focused on accounts that examined power in terms of bases or forms (Weber, 1922; French and Raven, 1959; Etzioni, 1961; Wrong, 1979) because this seemed to reflect the way in which power played out among STEMO managers. I examined gender differences across the major bases that these accounts highlighted, as described above. However, I was also mindful of other conceptualizations of power (e.g., Bourdieu's [1984] conceptualization of various forms of capital) throughout my analysis, and paid attention to how my findings differed from these conceptualizations.

Conceptualizing Managers' Interactions with Employees

As I analyzed my data, I slowly began sorting and categorizing different managers' actions. At first, I was simply focusing on managers' approaches to their role more broadly, and I developed a large number of sub-types. I then combined and collapsed these sub-types into three major categories: one focused on performing technical work, another focused on customer relations, and a third focused on employee development. However, as I honed in on how Flex-It related to these approaches to management, it became clear that what mattered specifically was how managers interacted with employees. This, I realized, was similar in the first two categories, where there was an expectation that one waited for employees rather than approached them. In contrast, in the third category, managers proactively approached employees. I also eventually noted that managers' involvement in particular tasks (e.g., client vs technical vs employee development) was not as starkly separated as I had originally identified, but rather, that these categories of action often overlapped and intertwined (e.g., client work entails knowing technical skills, advising an employee means knowing about their work). For these reasons, I ended up with two particular categories of how managers approached interactions with employees. Notably, in this case, the final number of two categories may also reflect the gendered processes of the organization, which tended to relate to men and women—that is, two genders—having different experiences in the organization, although as I describe in the body of the paper there were some exceptions to that general gendered pattern of experience.

As described in the body of the paper and Table 4, these two categories ultimately were comprised of two patterns of interaction, each composed of a set of actions which are underlaid with particular temporal and spatial characteristics. These categories therefore represented categorical differences, which could not be considered in opposition to one another—although they are contrasting—nor thought about as being along a continuum.

However, *managers engagement* in one or another set of interactions could be thought of as being on a continuum, with managers potentially engaging in one set of actions or the other, or something in-between (i.e., mixing one's approach to interaction). However, in the case that I studied, managers tended to engage in one set of interactions, that is, they did not regularly mix patterns of interactions and there was no "in-between" or "hybrid" category of managers that emerged in my data analysis. Again, this seemed to reflect the gendered organizational processes at STEMO, which generally led men and women to experience one of two paths to and experiences of management. It also seemed to reflect the general tendency for individuals to engage in consistent patterns of interaction with others (Goffman, 1967). For instance, it would have been difficult for a manager to be fully involved in technical work, and then the next day, week, or month, ignore it to be more involved with employees; the manager would be letting down customers. This being said, there were of course some circumstances in which managers drew on the other approach to interaction (e.g., a manager who typically does not initiate interaction with employees does initiate interaction). In the next section, I describe two key contextual factors that shaped managers' interactions with employees.

How Contextual Factors Shape Managers' Patterns of Interacting with Employees

Here, I provide data analysis details and findings regarding how managers interacted with employees. Managers were relatively consistent regarding how they interacted with employees, reflecting the gendered organizational processes that shaped their interpretations of and engagement in interactions. However, there was still some variation in how managers interacted with employees depending on the particular context. My data analysis surfaced two specific contextual factors that seemed to matter: employee characteristics and "delicate" work tasks. As I explain below though, these do not affect my overarching results, namely, that women and men managers tend to interact with employees differently and that this affected how they responded to Flex-It.

Employees' Individual Characteristics. How do employees' individual characteristics (e.g., gender, age, race, seniority) relate to managers' approaches to interaction? Do these characteristics matter, and if so, is their "effect" contingent on managers' own characteristics? I found that, as to be expected, there was some variation in how managers and employees interacted based on employees' characteristics (e.g., managers tended to discuss career development more with more junior employees). Managers' characteristics also informed these interactions (e.g., a racial minority manager and a racial minority employee were more likely to discuss issues related to race than if either the manager or employee were white). However, managers' overall approaches to interacting with employees—as defined by the dimensions in Table 4—remained relatively consistent across employees. In other words, while the concrete substantiations of these approaches varied from employee to employee (e.g., in terms of the topics invoked during social banter) the actual pattern of interaction—which was what mattered in terms of support or opposition to Flex-It—remained consistent. It was this consistency that seemed to also explain why managers responded consistently—either by approving or opposing—various employees' requests for the policy (i.e. managers did not say some employees could use the policy and others could not).

However, while managers were relatively consistent in how they approached interactions across employees, there was a difference in how women and men employees felt about men managers' more hands-off interactional approach. In the paper, I address these differences in the findings section.

"Delicate" Work Tasks. Managers all believed that particular work tasks (e.g., major client visiting STEMO or dealing with an aggressive and angry employee) required particular care and this typically tipped them towards a more involved interactive approach. However, this urgency was a) infrequent and short-lived, b) experienced by both men and women managers. Therefore, while "delicate" tasks explained temporary adjustment in interaction patterns, on the whole men managers still interacted less intensively with employees, and notably, women managers' experiences were not driven by them having more "delicate" work tasks in their unit.

Appendix II. Alternative Explanations.

Here, I provide explanations regarding why several potential alternative explanations do not explain the differences in men and women's responses to Flex-It. I provide summary answers below so as to protect the identities of individual managers as well as to more succinctly provide both quantitative and qualitative evidence.

Managers' Career Trajectories. One possibility is that women and men managers happen to have career paths that differ because of some underlying difference that is not directly connected to gender. However, I found that this was not the case. For instance, most managers joined STEMO in early to mid-career as employees, and were later promoted to manager (59% of men managers and 53% of women managers). Men managers and women managers had supervised their units for roughly the same amount of time (6 years for men and 5 years for women) and been promoted after working at STEMO for a similar amount of time (10 years for men and 8 years for women). They also had roughly the same organizational tenure (16 years for men and 14 years for women). They had similar levels of work experience before promotion to manager (24 years for men and 23 years for women).

Importantly, most managers had master's degrees, and so men and women did not markedly differ in their formal education. This suggests that the gender differences in technical expertise did not reflect gendered differences in training, but rather, how technical ability and client connections were cultivated, as well as how recognized authority was recognized, within STEMO.

Manager' Units. Another possibility is that women and men managers supervised units that varied systematically, and that is what explains the gender difference in outcomes. However, I found that women and men managers supervised fairly similar units. Women and men managers supervised the same sort of work, which—as described in the methods—entailed interdependent client-facing technical work. Women and men both supervised engineering work, science work, and so on (i.e., there was not a gender difference in particular research supervised). Women and men managers on average supervise roughly the same number of employees (12). They had similar distributions of unit size (i.e. there were not some women supervising huge divisions and some supervising tiny divisions while men supervise "average"-sized divisions).

Further, women and men managers supervised employees of similar levels of expertise, as shown by three points. First, the education levels of their employees were roughly the same (typically a bachelor or masters). Second, men and women supervised a similar level of senior employees (62% for men and 58% for women). Third, STEMO always tried to higher highly qualified and skilled employees, and had rigorous criteria for measuring and testing skill, and these criteria were consistent across unit. Women and men managers also supervised employees with a similar spread of skills (i.e. a mix of junior and senior employees) as measured in two ways. First, the distribution of education levels of employees were roughly the same for units supervised by men versus women. Second, the distribution of rank of employees were roughly the same for units supervised by men versus women.

Informal Flexibility. Did women managers allow employees to have more informal flexibility before Flex-It, and is that why their employees used the flexible work policy less? I examined my data for this potential alternative explanation, and found the answer was "no." Both before and after Flex-It, the amount of informal flexibility was very low across both men and women managers (i.e., employees were not able to consistently choose or control their schedules). For women managers, this seemed to reflect the fact that they were opposed to employees working irregular or varied hours as well as outside of the workplace, because it undermined their ability to supervise day-to-day (see section on "Women Managers Opposition to Flex-It"). For men managers, this seemed to reflect the fact that they were often uninvolved with their employees and did not want to put the time nor energy into thinking about or creating such accommodations. Flex-It—because it required managers to simply "check off" once regarding employees' use of flexibility—addressed men's managers concerns about flexibility, without addressing women managers' concerns about managerial effectiveness.

Protecting Women Subordinates. Another alternative explanation is that women managers anticipated that the use of flexible work policies could potentially harm women's careers and therefore limited women's policy use to protect their careers. However, I have no evidence that women managers were doing this. No woman manager voiced concerns about policy use harming women's careers, and they in fact encouraged women to use a variety of other work-life policies. Women managers also did not vary in their attempts to limit men versus women's use of the flexible work policy (i.e., they did not try to limit women to protect them but allow men to use the policy).

Flex-It as a Means of Overwork. Are men managers allowing employees to use Flex-It because the policy increases work hours—furthering commitment and availability—and do women managers oppose it for this same reason? I found no evidence that this was the case. Employees using and not using Flex-It worked similar hours. And no manager connected policy use with a desire to either increase or restrict employees' work hours.

Chapter 2

COLLABORATIVE COMMENSURATION: RECONCILING TEMPORAL AUTONOMY AND CLIENT SATISFACTION IN PROFESSIONAL WORK

with James Mellody

Many professionals lack control over the timing and number of their work hours because of constant demands from clients. It remains unclear if and how employees can resist these pressures and establish control over their work time. In this paper, we draw upon data from a 21-month ethnography of 79 software developers and testers at a financial services firm. We find that employees manage clients' demands through a process that we label "collaborative commensuration." In this process, employees cooperate to quantify disparate work tasks such that they construct a workload they can complete within normal work hours, while also legitimizing this quantification to clients. We contribute to the literature on overwork by showing how professionals may engage in processes of quantification to increase their control over their time and decrease the amount of overwork they engage in. We also contribute to the literature on quantification at work by showing how quantification can empower workers, instead of serving only as a means of managerial control.

Keywords: Time, professional work, quantification, client pressure, ethnography

INTRODUCTION

Professionals are overworked and overloaded (Beckman and Mazmanian, 2020; Kelly and Moen, 2020). For many professionals, pressure to work long and intense hours often comes from the need to meet client demands (Feldman et al., 2020). Professionals have spoken out against these long hours, and many organizations have adopted flexible work policies that formally grant employees greater control over their work time (Perlow and Kelly, 2014). However, as many scholars have illustrated, these policies often fail to produce meaningful improvements in employees' long work hours (Epstein et al., 1999; Blagoev and Schreyögg, 2019; Padavic et al., 2020; Wynn and Rao, 2020). And scholars have shown that individual-level practices—such as employees taking breaks or leaving work early without managers' explicit permission—are often ineffective in achieving sustained improvements to employees' work hours (Barley and Kunda, 2006; Moen et al., 2013). This raises the question: How can employees avoid overwork?

In this paper, we draw upon literature on the quantification of work to show how employees may engage in a process of quantification to manage their work hours. The quantification of work refers to the phenomenon of measuring work via numbers and metrics (Ranganathan and Benson, 2020). Scholars stress how this quantification allows for managerial control (Covaleski et al., 1998; Mazmanian and Beckman, 2018). One central aspect of quantification is its role as a vehicle of commensuration, that is, "the comparison of different entities according to a common metric" (Espeland and Stevens, 1998: 313; Espeland and Sauder, 2007).

This study draws on data from a 21-month ethnography of software developers and testers at a financial services company that we refer to as Finance Co. As we describe below, these developers and testers were in relatively low-powered positions compared to their clients

and managers, and in this sense, they could have easily been pressured into working long and intense hours to ensure client satisfaction. However, developers and testers generally managed to work reasonable and not overly intense hours. As we describe below, employees managed client and supervisory demands through a process that we label collaborative commensuration, through which employees worked together to quantify disparate work tasks such that they could establish a manageable workload—that is, a workload they could complete within normal work hours—while also legitimizing this quantification to clients. Through this process, they managed to satisfy clients, while also maintaining a reasonable work schedule of roughly 40 hours per week.

This study contributes to our understanding of professionals' overwork by identifying how employees can increase their control over their time through processes of commensuration. It also contributes to our understanding of the quantification of work by demonstrating how processes of quantification can be used to empower workers, rather than simply operating as a form of managerial control.

OVERWORKED PROFESSIONALS

Professionals are overworked and overloaded. An increasing proportion of these workers are putting in 50 hours or more per week, with many of these hours spent engaging in intense work (Cha and Weeden, 2014). This overwork has negative consequences for employees, with many reporting being exhausted, tired, and burnt out, and to experience conflict between work and home demands (Michel, 2011; Mazmanian, 2013; Kelly et al., 2014).

For many professionals, pressure to work long and intense hours often comes from the need to meet client demands (Feldman et al., 2020). Employees may field these demands directly (Padavic, Ely, and Reid, 2020). For instance, doctors often receive patient calls in the mornings,

evenings, and weekends (Briscoe, 2007). Similarly, lawyers and consultants often get emails from clients throughout the day (Epstein et al., 1999; Perlow, 2012). Clients' demands may also be channeled through managers, who put pressure on employees to provide products and services as quickly as possible for customers (Perlow, 1998; Blagoev and Schreyögg, 2019; Gonsalves, 2021).

Professionals, in many cases, have spoken out against these extreme work hours (e.g., Chapter 1 of this dissertation). In response, many organizations adopt flexible work policies that formally grant employees greater control over their work time. The most successful implementations of these policies involve employees and employers redefining norms and power relations such that workers are granted authority to control their own work hours (Perlow and Kelly, 2014). However, such vast work redesigns are rare, and once in place are often overturned (e.g., Kelly and Moen, 2020). In reality, most policies that are implemented entail employees asking managers for more flexible schedules (Kelly and Kalev, 2006). The result is that employees often do not use these policies because managers limit subordinates' policy use (Kelly et al., 2010; Chermack et al., 2015). This is often because, as outlined above, managers are concerned with making sure clients' demands are fulfilled (Perlow, 2012: 118).

Scholars have examined additional ways that employees can potentially gain control over their work time without relying on managers. Individual-level practices can increase employees' control, such as employees taking breaks or leaving work early without managers' explicit permission (Roy, 1959; Fine, 1990; Reid, 2015). Some employees also gain control over their hours by changing their relation to the firm, by moving to part-time schedules or working as contractors rather than permanent employees (Evans, Kunda, and Barley, 2004; Osnowitz and Henson, 2016; Anderson and Bidwell, 2019). However, researchers note that there are limits to

these individual-level practices. For instance, individual acts of resistance do not renegotiate control rights in a way that is coordinated and approved of by either managers or coworkers, and so generally only lead to marginal changes (Moen et al., 2013). Contracting's instability often causes workers to put in long hours to improve their technical skills and network with potential clients (Barley and Kunda, 2006; Lehdonvirta, 2018). And even when working part-time schedules, employees often end up working longer or more intense hours to satisfy clients and managers (Kelliher and Anderson, 2010). In sum, individual-level practices rarely allow for employees to regularly limit their work hours.

It remains unclear, then, how workers can limit the pressure to work long and demanding hours, particularly in cases where they do not have managers' support. While there may be multiple avenues for workers' resistance, as described in this paper, recourse to processes of quantification and commensuration might be one means through which employees can limit hours.

COMMENSURATION

Commensuration has exploded in recent years with the movement to "big data" across various fields and industries (Brayne, 2017; Fourcade and Healy, 2017; Mennicken and Espeland, 2019). Accordingly, management scholars across literatures such as organization studies (Mazmanian and Beckman, 2018), strategy (Chatterji and Toffel, 2010; Sharkey and Bromley, 2015; Ody-Brasier and Sharkey, 2018), and accounting (Power, 1997; Miller, 2004) have paid increasing attention to both commensuration and quantification. Commensuration transforms qualities into quantities and differences into magnitudes, ultimately constructing entities that appear comparable (Espeland and Stevens, 1998). Specifically, by transforming differences into

quantities, commensuration unites objects under a shared cognitive system while also distinguishing them by assigning each a specific value (Espeland and Stevens, 2008). Through processes of commensuration, the amount of information people process is reduced (Espeland, 1993; Espeland and Sauder, 2007). Common examples of commensuration include prices, ratios and rankings systems.

Commensuration is a means of power. It displaces particularistic and local forms of knowing that are more depersonalized, removing power from those locally situated (Kiviat, 2019). It normalizes which behaviors are acceptable and unacceptable (Foucault, 1975; Espeland and Sauder, 2016). It can be wielded as a means of justifying particular decisions or courses of action (Déjean, Gond, and Leca, 2004; Denis, Langley and Rouleau, 2006; Slager and Gond, 2020). It organizes actors and objects into categories, judging them and allocating resources on the basis of these categories without considering in detail their individual characteristics (Porter, 1995; Bermiss, Zajac and King, 2013; Miller and Power, 2013). For instance, employees' performance can be abstracted and compared across metrics, without attention to individual differences, and this can lead to competition among workers (Burawoy, 1979; Townley, 1993). Similar processes can unfold at the organizational level (Sauder, 2008; Mingers and Willmott, 2013). Not only, then, does commensuration allow for more power for the powerful, it also might create new divides among the less powerful.

Within the workplace, employees may object to the use of commensuration regarding their work. However, they are generally unable to effectively resist (e.g. Levy, 2015; Christin, 2018). By responding to numbers—even in attempts to "game" them—workers and other actors reinforce their legitimacy as things to be recognized and respected (Sauder and Espeland, 2009). In many cases, employees ultimately enact "self-control," where they continuously align their

own actions with organizational or field-level metrics and goals (Ranganathan and Benson, 2020; see also Covaleski et al., 1998; Miller and Power, 2013). Of course, there are clear examples of commensuration failing to be institutionalized (Huault and Rainelli-Weiss, 2011) as well as its vulnerability to challenges (Hirschman, Berrey, and Rose-Greenland, 2016; Kiviat, 2019). However, theory has not yet developed regarding how employees whose work is subject to processes of commensuration can resist these processes.

METHODS

Setting: Software Development at Finance Co.

Finance Co.'s Developers and Testers. Finance Co. is a large financial services firm in the United States. Traders are the firm's primary "core" employee group, who generate the firm's revenues. Supporting these traders is a large contingent of internal administrative and operations staff, including software developers and testers who create the applications traders use day-to-day (e.g. to trade stocks). Developers' main tasks are to write and edit code to create and improve these software applications. Testers' primary tasks are to test this software in a variety of "scenarios" before the traders use it. For example, a tester might verify that an application correctly allows for a purchase of 100 units of X Corporation's stock.[4]

Most developers and testers were contractors, formally employed by staffing agencies instead of Finance Co. Importantly, this placed them as relatively low-status actors at Finance Co., who could be hired and laid off "on demand." Almost all developers and testers are originally from India. Approximately 79% percent were men. Many were also the primary

[4] Some testers and developers had secondary roles (e.g. "scrum master," "product owner") that are specific to Agile methodology described below. We do not include details on these roles here as the developer and tester roles were the central ones that impacted the outcomes detailed in this study.

breadwinners for their families, and so wanted to maintain their position at Finance Co. Developers and testers were dedicated professionals who wanted to deliver a quality product to their client. However, these workers also wanted to spend time with family and friends outside of work hours. While they enjoyed work, they also wanted personal time.

Developers and testers worked in teams of roughly eight employees. On a typical team, there were roughly five developers and three testers. Teams' customers were generally a group of other Finance Co. employees, typically senior traders. Teams typically worked for one group of customers at a time, and a given tester or developer was usually only on one team at a time. Each team was also overseen by a manager, whose job was to provide resources (e.g. funds to hire more workers) and, more broadly, make sure the team completed its work on time for the client. Managers did not attend all team meetings, but instead would only attend key meetings (e.g. those with customers). Managers had a background is software development. They were generally American, although they were diverse in terms of ethnicity and race (e.g. African-American, East Asian-American, South Asian-American, European-American). Almost all managers were men. Teams typically lasted for two to five years, before the software development process was complete.

Most employees physically worked together in one of Finance Co.'s American locations, where we performed our fieldwork. However, on each team there were roughly two to three employees who were situated in India. Onshore and offshore employees had similar experiences regarding the processes we outline in this paper, and so we do not discuss them separately.

Agile Software Development. "Agile" is the dominant software development framework in the IT industry. Before the mid to late 2000s, software development tended to follow a

"Waterfall" process in which customers provided details to IT workers about how the software application under design should work. Developers and testers would then create the software, and share it with clients. The main problem with this method of development, however, was that customers would often ask developers and testers to change particular features after the application was formally "complete" because only after seeing the product did they realize they wanted a tweak to a given feature. One of Agile's main principles, in contrast, is to make sure customers and employees interact more regularly so that customers are happy with the product developers and testers are creating. Practically, this requires software development to take place in cycles or "iterations" that end with a demonstration of the application to the customer. These iterations are typically one or two weeks long, in contrast to the months it took for customers and workers to meet under a waterfall methodology.

Today, there is an entire industry focused on institutionalizing Agile, including a certification program for Agile "coaches," and official handbooks, rules, and guidelines. While there are several versions of Agile, the form that managers introduced at Finance Co. had several key features. First, new features that clients want in their software are labelled as "stories." Second, employees assign "story points" to each story. At Finance Co., the number of story points was supposed to be based on how many steps are in each story. Third, employees need to "commit" to a certain number of points that they will deliver to clients by the end of a two-week development cycle. So, for instance, a team might commit to five stories worth two points and three stories worth four points, for a total commitment of 22 points for a given two-week cycle. The amount of points a team completed in a given iteration was referred to as the team's "velocity."

While Finance Co. managers supported this model of Agile software development, employees pointed out that it was untenable for several reasons that we describe below. As a result, employees often made practical adjustments to how development and testing was performed day-to-day at Finance Co., similarly to how many other professionals adapt their actions in relation or response to official rules or requirements (Zbaracki, 1998; Kellogg, 2009; Gray & Silbey, 2014; Huising, 2019).

The Development Cycle. Finance Co.'s software development teams worked in two-week cycles (Figure 1). At the start of a given cycle or iteration, they went through a list of clients' requested work tasks, which clients ranked from most to least important. Employees then assigned points to each story and decided which stories they would perform during the iteration, and by extension, the number of points they would commit to delivering to the client. Employees then spent roughly two weeks coding and testing their code. Typically, this entailed one or more developers writing the code, and then one or more testers making sure that it worked as the client expected. At the end of this time, they presented their work to customers by demonstrating the new software functionality they developed and tested. They also noted whether or not they completed the number of points they had committed to at the beginning of the iteration. Clients then voiced whether or not they were satisfied with the team's work. This was generally the only time in which customers provided an appraisal of a team's performance. Employees also needed to make sure that managers believed that they were satisfying clients. Managers appraised employees' success at this through attending these client-team meetings, and also talking to clients privately.

---Insert Figure 1 about here---

Data Collection

Over the course of 21 months we observed 82 development cycles from 79 IT professionals across nine software development teams. During each cycle, we typically attended one or more morning check-in meetings, planning meetings where employees determined what work to do, employees' presentations to clients, and a retrospective meeting where employees discussed how the previous iteration went. We also often attended a variety of less regular meetings (e.g. within-team demonstrations of software), social events (e.g. lunches, coffee breaks), and ad-hoc discussions between workers. We engaged in hundreds of informal conversations across cycles, and also performed 24 half-day shadows of employees. During all observations, we took notes, often typing them directly into our laptops. Because workers were almost always on their own computers during meetings, this did not distract workers. We stopped observing new teams and new cycles after we felt we reached saturation, that is, observations of new teams and new cycles did not reveal substantively new findings in relation to employees' experiences of time, work, and overwork.

We performed 58 interviews with employees. During these interviews, we asked workers about their understanding of their day-to-day tasks; their interactions with clients, managers, and coworkers; and their experiences of work and non-work time. We also asked more specific questions relating to how employees divided work tasks, assigned points to tasks, committed to a certain number of points per iteration, and handled work difficulties that jeopardized the timely completion of work. We interviewed employees until we achieved saturation on the topics of focus of this paper, that is, we kept hearing the same comments regarding workers' experiences of time, work, and overwork. We also had six interviews with managers—including at least one

manager for each team in our study—to understand their perspective on employees' work practices, their own supervision, and team-client relations.

Data Analysis

After each observation and interview, we open coded our data. Through these codes, we identified emerging themes relating to time, control, and client work. We eventually realized that employees were engaging in a process of quantification in relation to their work. We wrote several memos on our initial understanding of this process. Then, we recoded our data in more detail, focusing on how employees engaged in this quantification through day-to-day practices, and managers' and customers' understanding of and relation to these quantification processes.

Through this coding, we developed the concept of "collaborative commensuration," which we detail below. After identifying this central concept, we focused our analysis on the cycles of software development we observed, to see if and how this process was carried out in each cycle. For each cycle, we coded for the quantification-related practices employees engaged in. We also coded for whether the team experienced overwork or not, operationalized as 1) employees working more hours per week than they wanted to (generally over 45 hours per week), or 2) employees working very intensely during their work hours. We also coded for whether customers were satisfied or not with the employee's work during the cycle. We found that the teams we observed generally experience collaborative commensuration similarly. Through this coding, we eventually developed the model which we present below.

COLLABORATIVE COMMENSURATION

Developers and testers at Finance Co. felt that clients could potentially make heavy demands on their time. As one developer explained, “Customers often want things done quick. They are always in a rush.” Similarly, a tester noted, “Customers want the work delivered on time. That’s their number one priority.” However, during most development cycles, developers and testers managed to work roughly 40 hours per week, and did not work overly intense hours. Employees managed clients’ demands by cooperating with coworkers to quantify disparate work tasks such that they constructed a workload they could complete within normal work hours, while also legitimizing this quantification to clients. We label this process “collaborative commensuration,” and we describe it in detail below. Figure 2 shows our model of collaborative commensuration.

---Insert Figure 2 here---

Quantifying Work Tasks

In the first step of collaborative commensuration, employees worked together to quantify customer work tasks. They did this through two specific sets of actions. First, at the beginning of each two-week cycle, they collectively assigned a certain number of “story points” to each individual story. Then, employees worked together to select a delivery number, that is, a particular number of points they would deliver to clients at the end of the given two-week development cycle.

Assigning Points to Each Task. Employees collaborated to assign points to work requests from clients. Typically, this was done at the start of a given two-week development cycle. Workers would meet together and go through tasks one at a time. For each task,

employees would take turns stating how many points they believed the task to be. As described above, managers formally expected employees to assign a number of points that reflected the total number of steps in a given task. As one manager explained, “You need to calculate points by counting the number of steps in each [work] requirement. Steps should ignore complexity and one’s experience with the work.” However, employees explained that it was important to consider how much work the actual task required. One tester noted, “When figuring out the points, we ask one another, ‘How big of an effort do you think this requirement is to develop and test?’” Similarly, a developer explained, “We assign points based on the amount of work we need to do. Sometimes you have to do more work, sometimes you have to do less.”

Employees collectively engaged in a series of practices to make sure the points they assigned work tasks reflected their difficulty (see Table 1 for a summary and additional examples). First, when assigning points, they appointed someone to perform detailed research to make sure that they understood the difficulty of required work tasks. In this way, they made sure that they were not surprised with additional work that would cause a story to be more difficult than anticipated. As a tester described about how his team approached assigning point: “We think through the entire process of making a story so that we know what exactly we need to do for a specific story. There might be parts related to a story, for instance, that we need to think about when assigning points.” During one meeting, a team was talking about how many points should be assigned to various stories. They noted that for one story, they had “already sized” how many points it had. But for another on incoming messages, they had not yet reflected on how many points it should be. One tester volunteered to research this: “I’ll complete learning about the story, then I’ll ask you for its sizing.” Relatedly, if there was a disagreement as to how many points to assign, team members deferred to the person who had previously performed this

work as this person had a better sense of what exactly was required to complete the task. As one developer explained, “Based on my experience and how much time it took us to do similar stories in the past I’ll know, ‘Okay, it will take this many days to do this story roughly.’” Through such practices, employees worked together to make sure they understood the difficulty of a given story before assigning points to it.

---Insert Table 1 here---

When assigning points to stories, workers also considered the skill level of the employee the task was assigned to. A tester noted, “People’s skillsets differ. There are some people who are very quick. They are doing six stories in an iteration. There are some who are doing two stories an iteration.” One tester, Lakshmi, was new to her team. The client asked for a new test that would allow traders to search and display a particular set of financial data. The team members collectively decided that this would be a good task for Lakshmi to do as it would make her familiar with the software they were developing. The team members then discussed how many points to assign to the task. One noted, “I think we should assign four points because Lakshmi is new to the team. It’s a new story for her, and she will need to learn. So let’s go with four.” He noted to his teammates, however, that it would usually be a two-point story because it would make use of code the team had already developed. It was because of Lakshmi’s lack of experience—which meant she would perform the work slower—that the story should be more points.

Employees also worked together to break work tasks up into separate stories if they thought they could only complete part of a story in a given iteration. In doing so, they aimed only to commit to work tasks that they could complete within two weeks. One developer described, “If it is an six-point story, we’ll try to break this story into one, two, one, and two points, or

something like that… We'll be breaking that story into sub-stories and then we'll be assigning points to those sub-stories." In a typical example, a team was discussing three different work tasks that the client wanted completed. They considered committing to all three during the current iteration, but one tester noted, "If we don't finish them all, then we will have to have another story in the next iteration." That is, the stories would not be complete and would carry over to the next development cycle. So, the tester decided to combine two of the three stories into one larger story that they could complete during the current iteration, and then move the third story to the next week: "I'll make two stories, each with two points, so that one story can be marked complete for this iteration. Then we can do the other story next iteration."

Through carefully tracking the difficulty of these tasks, ultimately employees worked together to roughly equate points to a particular number of hours per week of work. As one developer explained, "If you think about what our team does, it's sort of like a mathematical thing. So for instance for one story point we have like one person working on the task for one day, so like eight hours." A tester similarly noted, "We assign points based on our understanding of how much time the task will take." One team, for instance, used four points to demarcate a story that would take "two days" to complete. Another team used four points to demarcate a story that was "doable maybe within a week." For a third team, four points meant the story "is going to take an entire eight hours."

Selecting the Delivery Number. After agreeing upon the number of points for each story, employees worked together to decide how many total points they would commit to completing for the client over their two-week work cycle. They then told clients this particular number. As described above, managers formally expected employees to select the same number

they had delivered previously. However, workers noted that this number was not always a good guide for how much a team could reasonably deliver. Table 2 summarizes the practices employees used to arrive at a delivery number for a given iteration, and includes additional examples.

---Insert Table 2 here---

If teams performed roughly 40 hours of work in the previous cycle, they tended to use the previous cycle's committed points—or "velocity"—as a starting point for determining how many points to take on in the upcoming cycle. As one developer noted, "Based on how many points the team completed in the last iteration, we agree on how many stories to take in the current iteration." Similarly, a tester stated, "If your team is going at a pace of 40 points per iteration, you usually keep doing that." However, employees noted that from cycle to cycle they sometimes needed to adjust their amount of work based on their team members' availability. As one developer explained, "The number of points we commit to depends on the availability of the team members." During one meeting, employees discussed committing to 20 points for an upcoming development cycle. One tester stated, "What's the team's bandwidth [i.e. availability for work]? We might need to drop some stories or add some stories from the iteration. I think fewer people are available because some people are off on vacation." On his recommendation, his coworkers agreed to take on fewer stories, as some team members were away. Employees collectively adjusted how many points they committed to in response to their members' availability for work.

Workers were also aware that unexpected impediments could come up during the software development cycle—as described in more detail in the next section—and so they left a "buffer" of work time available so members could handle these unanticipated challenges. As one

developer explained, “Normally we take on 40 points per iteration. Then if new things come up, like there are some important things you need to deliver to the client, then we can add more story points to get to 44.” In a typical example, one team was discussing what work to take on for their next cycle. Employees agreed on 28 points, when one member suggested that perhaps they could go to a slightly higher number: “This past iteration we completed 30 story points. So can we take on a few more points this iteration? What do we think?” A developer responded, “Well the [X] story is uncertain so that might take more time.” The developer suggested that they prepare for unanticipated difficulties. His fellow team members agreed, grateful that the developer had flagged this potential challenge, and the team did not take on more points. Teams sometimes specifically marked stories as “buffer” stories—which they would take on if they had the bandwidth at the end of the iteration. One team member, discussing whether to take on a specific story, said: “I’ll put this in buffer for Iteration 9. Let’s see how much you guys can complete.” Employees were aware that unexpected impediments could come up in their work and they collectively accounted for this when committing to completing a certain number of points within two weeks.

Through carefully selecting the deliver number, ultimately employees coordinated their work so that they took on roughly 40 hours of work per week. As one developer explained, “If a story is like one point, we know that is roughly six to eight hours of work for one person to do basically… So we try to keep all that in our minds when we come up with how many points to take on.” During a planning session, another developer advocated for maintaining a reasonable velocity: “I don’t want to loop points too high [such] that we can’t manage later – want to stay around 34, 35, 36 max.” Similarly, a tester noted, “Normally we just take on 40 stories. Because

we know with this team, if you take on say 44 then we are overworking… We won't ask the team to work on the weekends to complete extra work."

Leveraging Quantification to Overcome Unexpected Difficulties

During the two-week cycle, unexpected difficulties often occurred that jeopardized employees' ability to deliver the points they had committed to completing for the client. As described below, employees collaborated to respond to these unexpected challenges by leveraging quantified work tasks in a variety of ways.

Unexpected Difficulties. The most common impediment employees collectively faced was clients asking them to complete extra tasks during the two-week development cycle. As one developer explained, "Business will drive what we need to do. So sometimes we end up taking more stories on than initially planned." Another developer explained, "Sometimes we prioritize say two stories for an iteration. But then the client comes and tell us, 'No, X is important.' So then we also need to prioritize that story. What we need to do fluctuates." In addition to new client demands, employees faced other sorts of unexpected challenges. For instance, a customer requirement might take more work than employees anticipated. As one developer explained, "Sometimes our team is not able to understand a story right away, and so we work slower." Or an employee might unexpectedly need to take time off, for instance, to care for a sick child or because they themselves were sick. One developer was unexpectedly not available for several days during one cycle because his daughter was in and out of the ER. Such unexpected events challenged employees' abilities to complete their work.

Leveraging Quantified Work Tasks. In response to these difficulties, workers collaborated to leverage the quantification of work tasks to make sure they could still meet their team's delivery number (see Table 3 for a summary and additional examples). For instance, employees often swapped stories of equal point values: they deprioritized a story that was not as essential, and replaced it with another story that needed to be completed within the development cycle. As one developer explained, "Sometimes we pick up additional stories in an iteration if it is a priority from the business. So we take out some of the existing stories and add in new ones." In one example, a developer was out on an unexpected one-week emergency leave because a family member was ill. As a result, she could not perform many of the tasks assigned to her. When she returned, her team members asked her to focus on a new story that the client wanted, and to swap that story for the other ones she had committed to doing. As one member noted after the meeting, "The stories we deprioritized for [the developer] are out of our team's queue for now. Whatever she picks up will be in the queue now instead." By swapping the story, the developer and her coworkers tried to make sure they were able to finish its work on time.

---Insert Table 3 here---

Employees also sometimes classified unexpected work related to a specific story as a *new* story to be completed in a future iteration. In doing so, they could mark the original story as complete and then address the newly cropped-up issues to the next iteration with a separate set of points assigned to it. As one tester explained, "If a problem is big, we create a new story. It is a new issue that we have not yet tested." In one example, a team was encountering issues with a story. A tester asked, "So are the issues part of the same story, or do we need a new story?" A developer replied, "This is a relatively new problem, and we've never seen it before. So let's

split the story, and create a new story." The team did just that. New stories—with separate points—were created for future iterations.

Relatedly, employees sometimes "split" stories that were partially finished in a given iteration by counting the points for the part of a story they completed, and moving the more difficult part of a story to the next iteration. As one developer explained:

> Sometimes, we get done all the planning work or the analysis work on a story, and then we got this production issue or new requirement from business. But we already did some work on that story. We don't need to give the same story points because half the work is already done. We will close the story in the current iteration and we open a new story in the next iteration... We will count the points we completed [in the original iteration] but not what we did not complete. But we will continue working on it and try to finish it for the next iteration.

In one example, a tester had been working on a story and had completed many of its subtasks by the end of the iteration, but some work was still incomplete. Specifically, there was one more part of the story to test. Another tester explained to his teammates: "We can split that. So we can open another story—a new story—to include the rest of the scenario." A developer chimed in, "Yes, in my opinion I think she [i.e. the original tester] has done her work and put in her time. Deferring that part of the story to the next iteration is what we should do." The employees ended up splitting it so they could claim points in the current iteration and complete the rest in the next iteration.

As described above, workers collaborated to quantify work tasks, and then leveraged these quantified tasks to manage their workload. However, employees' ability to quantify work tasks depended upon the fact that this quantification was accepted as legitimate by clients and

managers. In the next section, we describe how employees worked together to legitimize quantification to clients and managers.

Legitimizing Quantification

Employees' ability to rely upon work tasks depended upon the fact that this quantification was accepted as legitimate by clients and managers.

Legitimizing Agile to Clients. First of all, employees worked together to teach clients the basics of Agile so that, ultimately, they accepted it as a method through which software development could take place. Clients were required to take Agile training, so that they understood the basics of Agile software development. In a typical training session, clients were taught terms such as "velocity," "iteration," and "commitment." Developers and testers then reinforced clients' knowledge of Agile by regularly explaining the process to clients, for instance, during client-employee meetings. Over time, clients became more aware of these Agile terms' meanings.

Developers and testers also collectively reinforced key target numbers—specifically their commitment number for a given iteration—to clients and managers. They emphasized these numbers by sharing them with clients in an application called Team Share (see Figures 3a and 3b). In this application, clients could see how many points a team had committed to and delivered (i.e. the team's velocity) for each iteration. Similarly, during team-client meetings, employees often showed clients and managers graphs and figures that demonstrated the team's target numbers and completed numbers of story points (see Figures 4a and Figure 4b for examples). For instance, one team typically showed slides that depicted the team's goal number

of points and its accomplished points, including a graph of its past rate of story completion. These slides were emailed to clients a few hours before the meeting, and also presented at the start of each meeting.

---Insert Figure 3a and 3b here---

---Insert Figure 4a and 4b here---

Of course, clients ultimately cared about the delivery of functioning software. As one developer noted, "The clients don't want to find any issues in the application." However, velocity came to represent how much clients could expect employees to deliver within a two-week period. As one tester explained, "Clients care about if we hit our target in the timeframe. That's how they measure the success of the project." As one tester explained, "The managers have specific parameters such as velocity that they look at on our team." Through the concept of velocity, clients developed an understanding of the pace at which they could expect work to be completed. In team-client meetings, clients verified expected dates for particular changes and expressed understanding around these timelines. Developers and testers often explained the timing of deliverables in terms of velocity and iteration cycles. For example, in one team-client meeting, a team member explained, "Our goal is in the next two iterations to complete core processes…and then at that point our velocity is going to take a dip because we'll have to do a lot of testing." The client expressed understanding of the situation, referring to the description from the team member as "good color"—context that helped the client understand when to expect the changes to be finished. Through this engagement with clients, teams could push back against unreasonable client expectations. One team member noted that clients "always push for 'I want this faster.'" He explained that pushing back against clients often meant emphasizing prioritization based on the limited capacity of the team. As an example, he said that he would

often tell clients: “In order for us to deliver this to you, we need to do [other] work in advance of that, and then we can start delivering on what your requests are.” He further noted that, during demo meetings with clients, team members would “try to educate the users on the demands of not just what their request is, but any type of technical requirement that may occur…that's going to consume key resources, [so] we try to make sure that they understand what the impacts are to the team.” Velocity, representing capacity, served as a metric through which to set reasonable timelines for work to be delivered, enabling teams to maintain control over their working hours rather than overworking to immediately meet client demands.

Managers and the Legitimization of Agile. Notably, most managers already accepted Agile; many had been hired because they had some experience with it, and almost all had received additional Agile training at Finance Co. These managers supported and helped with employees’ efforts to legitimize Agile practices. For instance, they organized trainings for clients. They also encouraged employees to use Team Share, as they believed it helped communicate team performance to clients. As one manager explained, “Team Share offers our clients an overview of our progress in an iteration.” Another noted, “Team Share gives good insight into what teams are doing, so we try to utilize it… Our clients are members of a big bank. They are not part of a software company. So we want them to understand that we are developing in Agile.” Managers generally supported and helped with employees’ efforts to legitimize Agile practices to clients.

Limiting Overwork and Achieving Client and Manager Satisfaction

Through this process of quantifying work tasks, employees ultimately worked together to maintain a manageable number of work hours while also satisfying clients. Reflecting employees' focus on quantification and particular target numbers, if the team met its target number, the client was typically happy. As one tester explained, "Clients care about if we hit our target in the timeframe. That's how they measure the success of the project." Similarly, a developer explained, "Clients look into velocity and metrics closely. They want to make sure we finish things on time." In a typical example, at the end of a team-customer meeting where the team presented its target and achieved number to the customers. One client noted, "Everything looks good. Big hand to the team." He and the other customers clapped, and did not express any expectations of the team performing more work.

Employees were also able to maintain a less harried pace of work, typically working 40 to 45 hours each week. As one developer noted, "I have a good amount of work to do. Even though the customers have a lot of requests." He typically worked roughly 9 to 5, and he rarely worked on the weekends. Another developer described how she enjoyed spending time in the evenings with her friends, playing tennis, or cooking large decadent meals. Her manageable schedule allowed her time to both socialize and pursue hobbies. A tester similarly devoted his evenings and weekends to time with his two sons, who were preschool aged. Through this process of quantifying work tasks, employees worked a manageable number of hours, while also satisfying clients.

Learning from Quantification

In the longer term, employees learned how to improve their quantification of work tasks so that they could secure client satisfaction while working reasonable workhours. First, they learned how to better estimate how much time it would take to perform a given story. As one tester explained, “When we size sometimes we rely on affinity sizing, like guessing how many points to assign to a story based on what we did in previous iterations. Like, ‘Oh, the last time when I did this story it took me two points. So maybe this time also it’s going to take me two points because everything is the same.” Second, over time, teams also learned better how many points they could complete within 40 hours of work per week for each team member. One developer explained, “Earlier in the year our team spiked to like, you know, 45, 48 points… Once we hit 48 like we started to see you know that we are not able to consistently hit 48 so we started rolling over more stories, so we reduced the velocity to have it between 40 to 44.” A tester on another team noted, “It is really by experience that we learn how many points to take on for a given iteration.” Her team learned, for instance, that they could rarely deliver more than forty points and so they never committed to deliver more than that in a two-week period. Teams over time realized how many points they could complete while working a reasonable number and intensity of hours.

FAILURES OF COLLABORATIVE COMMENSURATION

Employees generally were able to cooperate to quantify disparate work tasks such that they constructed a workload they could complete within normal work hours, while also legitimizing this quantification to clients. However, in some cases they ended up either working long and intense hours or failing to deliver the promised number of points to clients. Below, we describe

each of these types of failure in more detail. Table 4 shows in detail how often we observed teams overwork or fail to satisfy clients.

---Insert Table 4 here---

Overwork

While employees generally collaborated to adjust their work to match available time and avoided overwork while maintaining client satisfaction, sometimes they needed to put in long or intense hours to complete all of the clients' work tasks. Here, we highlight two of the most common failures that caused employees to improperly matched their work tasks to work hours.

Failure of Collaboration: Rate Busting. Sometimes, particular employees "rate busted" by pushing coworkers to take on more stories than could be completed in a development cycle while maintaining a reasonable pace of work. While a little "rate busting" by a team member might be manageable, too much could prevent the team from working a manageable schedule. One tester listed four challenging stories he wanted to complete in the next month, to which a team member noted: "That's pushing how much we can actually do." The tester insisted: "I'm trying to push us a little bit because then there are holidays. I'm trying to see if we can finish this work before then." The team took on the extra work, but then needed to work longer hours during that month. These examples of rate busting highlight the interdependent nature of collaborative commensuration. If one employee decided to not cooperate, it became difficult for the team to take on an amount of work they could complete within a two-week period. Sometimes, however, team members were able to compromise in order to limit the impact of a rate buster. On one team, a member advocated taking on more stories than the team could

comfortably handle. A developer pushed back, saying "we cannot [use] this iteration as benchmark – we are taking all the stories…everything is on priority [so] don't hold it as a benchmark, ok." So even though one team member was pushing the limits of the team's capacity, another stepped in to make sure that this overwork would be an exception, rather than the rule. This collaborative approach enabled the team to be flexible when needed, but maintain a standard of minimizing overwork.

Failure of Commensuration: Not Accounting for all Work Tasks. When workers did not assign points to work tasks that took substantial amounts of time, they often ended up needing to work long hours to complete all their tasks. One developer, for instance, said that she could address a problem in the code without creating a new story for it. Even when her coworkers asked her twice if she was sure, she replied assertively, "I think it's okay." However, she ended up needing to put in long hours that iteration to complete this plus other work tasks. In a similar example, during one iteration a team failed to assign points for all of its work tasks. The end result was that three team members had to "work off hours" during the weekend to complete all of the work the customer expected, because the team had taken on too much.

In sum, sometimes employees did not size their work to available time well and needed to put in long or intense hours to complete all of their clients' work tasks in the allotted time.

Failing to Complete Promised Points

Through the acceptance of Agile, employees earned clients' and managers' support for their work. However, it also made workers beholden to the standards of Agile. Customers and managers became focused on velocity, and in the relatively few cases where employees fell short

of their delivery number, these parties expressed disappointment. After one team failed to deliver twenty of their promised points, their manager noted with a sigh, “Your velocity is down.” She told the team they needed to perform better in the next cycle. Team members tried to avoid this failure. As one said, failing to complete the promised work was “a loss to our team because it's reducing our velocity and it's not good for the team to commit to the velocity…if we are not able to deliver.”

Clients and managers were only okay with employees falling short of their promised delivery number when workers could clearly show how their shortfall was dependent upon organizational factors outside of the team’s control. Most commonly, this was because the team’s software depended upon another team modifying a related software, and the second team had not yet had an opportunity to do so. For instance, one team had promised to deliver 24 points but had only delivered 14 points. They explained to the client that this was because another team was working on a related software, and until they finished, the team would not be able to do more work. The clients said that they understood this difficulty. One tester noted that sometimes “there are [iterations] where we promise that we will give 30 points, but we were able to give only 24 points. Then the client will obviously ask why it happened…We had some impediments so we tried to explain to the client that because of these impediments…external factors or something… we were not able to [complete all the stories]. Obviously, clients understand that.” Another team member detailed how his team would justify cases where they did not deliver on all promised work:

> So we give a justification even before we start the discussion, saying why there was a dip [in velocity]… So the dip could be due to many reasons, like there could be a production deployment that iteration which would take up most of our tasks… There could be [work]

> for upcoming stories that are required so that we can take more stories in the next iteration. There could be an environment set up required for the particular story that needs to be done… We couldn't do many stories so we justify or we give reasons why the velocity decreases in present iteration. So they really accept that.

DISCUSSION

Through collaborative commensuration, employees worked together to quantify work tasks. They assigned numbers to work in such a way that it reflected the total amount of work required for a given task. They also constructed numbers that represented the total amount of work a team could complete within two weeks. This process was learned over time, and team members improved their accuracy in measuring and quantifying work as they continued to collaborate together.

Employees also relied on the quantification of work to set client expectations regarding what work a team could produce in 40 hours per week. Quantification provides teams with greater control because it is them, not their clients, who perform this quantification, reflecting the fact that quantification is based on technical expertise that clients lack. In this way, the justification for the team's capacity is based on technical arguments that clients don't understand. Without this quantification, clients could potentially make endless demands of the team, as they would have no sense of the team's capacity. In other words, through collaborative commensuration, teams quantified and solidified the idea that the team had a finite capacity, thereby legitimizing the idea that clients can expect only so much to be done in one iteration.

Commensuration simplifies information. Customers and managers did not need to understand professionals' complex knowledge work, but instead, only needed to accept

employees' quantification of this work. These numbers proved a guidepost for stakeholders to measure how well employees were performing.

Collaborative commensuration reinforced the use of quantification in the workplace. When employees failed to attain the numbers they had promised to managers and clients, these parties expressed disappointment in employees' work. However, because workers still maintained control over the creation of these numbers from cycle to cycle, they were able, on the whole, to make sure that these numbers required only a reasonable work week.

Contributions to Research on Professionals' Overwork

This study contributes to our understanding of professionals' overwork in three ways. First, it identifies another way in which employees can increase their control over their time. Extant research has highlighted how flexible work policies and individual strategies can increase employees' control over their time. Here, in contrast, we outline how employees can maintain control over their time through quantifying work. We develop a model that shows how this process can take place.

Second, this paper highlights a *worker led* method of establishing schedule control. Current work notes that increases' in employees' work hour control are dependent upon supportive managers (Conzon, 2021). In contrast, we show how employees can shape their work hours actively, even when their managers push them to work long hours in order to satisfy clients. Because many workers have managers who are unsupportive of flexibility, this finding is important in expanding our understanding of the ways workers' schedule control can expand.

Finally, this paper draws attention to how knowledge work—which often takes place across time and space (Mazmanian et al., 2013)—can itself present the conditions that allow for

a limitation of overwork. In particular, because knowledge work is abstract and not always grasped by clients and managers, it provides conditions that supports workers' quantifying their own work. If clients and managers accept these methods of quantification, employees might come to use them to control their work hours, as presented in this study.

Contributions to Research on Quantification of Work

This study contributes to our understanding of the quantification of work in three ways. First, it demonstrates how processes of quantification can be used to empower workers. This is in contrast to much existing literature, that seems quantification as a means of organizational control over workers (e.g. Mazmanian and Beckman, 2018). Of course, there are limits to the empowerment quantification can bestow. Workers in this case still needed to deliver the total number of points they promised clients. However, our research presents a view of quantification that, on the whole, is more supportive of workers than previous research suggests.

Second, we show how commensuration can sustain and be sustained by cooperation amongst employees. Extant work on commensuration shows how it can often become a basis of competition amongst employees (e.g. Levy, 2015). In contrast, we show that employees might cooperate to create the conditions for commensuration, and that commensuration might create an environment of support and reasonable work hours—instead of competition—amongst workers. Commensuration can—in certain conditions—be a tool to help workers sustain a better work environment.

Third, we present in detail the way in which knowledge workers might engage in the quantification of their work. While there is some work that discusses how organizations and managers might codify and measure employees' work, there is little work that examines a

worker-led process of commensuration. This paper presents a model—that future work can build on—regarding how such quantification can take place, particularly amongst knowledge workers.

Boundary Conditions, Limitations, and Future Directions

Managers and clients at Finance Co. provided testers and developers with some independence in performing their work tasks. For instance, as described above, quantified work tasks were tracked in an internal software at Finance Co. While managers did not use this software to closely track employees' work, if they did, they could potentially limit some of the leveraging techniques described above (e.g. swapping requirements between cycles). Therefore, one boundary condition for these findings is that workers must have enough independence from managers to do this work without heavy scrutiny.

As described above, if the testers and developers at Finance Co. did not deliver quality products to clients (e.g. if the code did not work) then it is likely clients would be unsatisfied. Therefore, another boundary condition on these findings is that collaborative commensuration can only take place if other basic criteria for customer satisfaction are met.

Another important boundary condition on these findings is that clients were focused on employees' ability to deliver the committed to number of points, rather than a particular raw number. This came about because Agile entailed a baseless unit for quantification. If the unit of quantification was more precisely defined—similar to how clearly items on a production line are distinguished—then workers might not be as able to easily adjust the number of points they allocate to particular tasks. However, software development work—similar to many types of knowledge work—is not so clearly demarcated and delineated.

CONCLUSION

Professionals are increasingly overworked and overloaded, facing pressure to work long hours to fulfill client demands. It remains unclear how professionals can control their work time, and in turn, work more manageable schedules. In this paper, we show how employees can quantify disparate work tasks in such a way that allows them to reclaim control over their workhours, and to ultimately establish more sustainable schedules.

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Table 1. Practices for Quantifying Work Tasks by Assigning Points

Practice	Examples
Making sure team captures difficulty of work tasks (e.g. total number, level of challenge) when assigning points	Example 1: During a team meeting, one tester asked his teammates as they were reviewing a story: "Could we size this story now, or not at this point?" A developer replied, "Not at this point. We know functionally what we need to do, but we don't know exactly what needs to be done." That is, while they had a broad sense of what the story entailed, they did not know the particular subtasks involved in the story. The tester replied that one of the team members would look at how much work the story was, and only after this was done, would the team attempt to complete the story. Example 2: A team was trying to determine how many points to allocate a requirement. The developer Avi who typically performed these tasks was late to the meeting, and they were not sure how many points to assign. Just then, Avi joined the meeting. A second developer noted, "Oh good, Avi you joined… Any idea on the effort this story will take?" Avi noted it would not be too difficult, explaining, "It should not be more than four points." His team members agreed, and they moved on to the next story.
Accounting for skill level of employee	Example 1: One tester described, "Everybody has their own experiences with this work, right? Sometimes maybe based on the person's experience they can do all the work quickly and attend to the client's needs. It will take less time. We also need to consider, sometimes a new person comes onto the team and they need more time to understand the story. We need to constantly consider these things when we come up with the number of points for a story." Example 2: One developer explained, "Not everybody has the same level of experience… Some junior team members are just not going to be able to connect all the pieces to come up with a solution for a given story." For this reason, during meetings with her team she regularly advocated for those who were more "junior" to be given stories with a greater number of points.
Splitting tasks into stories that can be completed within the given iteration	Example 1: During a team meeting, one developer suggested, "Let's make the story four plus four." But another noted, "[The data] also needs to display in the widget." That is, it was more work than the first developer thought. The first developed replied, "Yeah, that's another four points." They moved on to the next story. A tester showed the team what the software needed to do, describing the process of how the funds needed to be used for loans and collateral. A developer noted another part of the story that would require the software to send data to multiple funds. It would be too much work for one iteration. The tester noted, "Yes, I understand… Let's try to break this down into smaller stories." The developer then described one possible way to break the task up into six stories. He noted the varying difficulty of the stories: "The first and sixth one will be straightforward. The other ones are more complex. Maybe they should be eight points each." The team agreed. As one developer explained after the meeting, "If there are many parts to a story so that it is bigger than eight points, we try to break it down into two or more parts. For example, we will do part of the story in this iteration, and part in the next iteration." Example 2: One tester explained an example: "We already have a process that basically consolidates our collateral and it does some allocation and then it populates into a consolidated table. So we make kind of a data source of multiple downstream systems and we are responsible for populating the table. So we had a new requirement where the client wanted to refresh the data in the collateral table. So collateral is consolidated from different points. One is bilateral collateral and one is non-cash collateral, for instance. So the requirement was basically, 'refresh the table.' That is what the requirement said from the business users. We decided that it was like too big a story to do as one story. So instead what we did was we went into the workflow and I looked at it and say, 'Okay, we have a two-week iteration period, so how best we can build the stories? How best can we divide it among multiple people so people can work on it faster and we can deliver it?'… So we discussed this and we decided that we'll split the requirements into three stories."

Table 2. Practices for Quantifying Work Tasks by Selecting the Delivery Number

Practices	Examples
Proxying points based on previous cycle's workload	Example 1: One team almost always committed to between 40 and 45 points per two-week development cycle. One tester on this team explained, "Normally we calculate the last three iterations' velocity. Our team velocity for the last three iterations is 40 points. So we try to stay around 40, 45 points." Example 2: One developer explained, "Because we know with this team, this set of ten people, if you are going at a velocity of 40 and next iteration you take 44 points, then you are overworking your team because how will the team deliver? So you should maintain the velocity at 40."
Adjusting workload to team availability	Example 1: In one example, a developer and his team decided to take on 40 points because some team members would be away for holidays. As he explained, "When people are taking time off, you have to exclude their workdays when deciding how much to take on. That's what we were discussing today. We took on 30 points because we had a few holidays… If our bandwidth is less, we cannot plan to do the same number of points. It is risky. We may not be able to deliver all the points because we have less people working. That's why at the meeting, the team needs to highlight anything like if anyone is taking time off, any holidays they have… It's like a rough estimate we do… Day-wise and people-wise and points-wise you calibrate through simple math. If one person is doing 12 points in ten days, then you need to lower the points by that much. Something like that." Example 2: Teams often had members report if they were taking any vacation at the beginning of a cycle. In a typical example, team members wrote their availability in a group chat during a meeting at the beginning of a cycle. Developer 1: 100% [availability] Developer 2: -1 [i.e. away one day] Developer 3: -2 Developer 4: 100% Tester 1: -2 Developer 5: 100% Tester 2: 100% Tester 3: 100% Once these numbers were reported, the team then decided the total number of points to take on.
Accounting for unanticipated difficulties	Example 1: During one team meeting, a tester said that he would leave one story for next iteration. If he had enough time, he would do it this iteration; otherwise it would wait until next iteration. In doing so, he did not entirely fill his schedule, but rather reserved time for any unexpected difficulties that could come about in the course of his work. Example 2: One team realized that its members were spending a lot of time resolving impediments—work not accounted for by stories. This team decided to create a story for each iteration which they could populate with miscellaneous work that was required but that did not relate to any existing functional stories. This enabled them to capture miscellaneous troubleshooting in the team's velocity.

Table 3. Practices for Leveraging Quantification to Overcome Difficulties

Practices	Examples
Swapping stories of equal point values	Example 1: During a meeting, the team decided they needed to do some new stories urgently but that they did not have enough "bandwidth" because people were on vacation. So, they decided to swap stories. As one tester told his teammates during the meeting, "We can drop some stories and add some stories for the rest of this iteration… We could drop something from [X story] maybe." They did just that. Example 2: A developer explained, "Sometimes in the middle of an iteration we have [bugs.] So we try to look into the issue or try to come up with a solution [that forms a new story]. And so current stories in the iteration get reprioritized to the next iteration… If we have bandwidth, we try to add the additional story into the same iteration. But if that's not possible then we move one of the original stories, you know, we switch a four-point story for another four-point story, and we do the [original] story in the next iteration."
Creating a new story for problems	Example 1: One tester explained how his team handled unfinished stories: "We look at why we could not complete the story, and then we'll pick it up. If we know that maybe we did not scope it out sufficiently, then we might try to add different parts to the same story like, you know, do part one, part two, because the team may not be able to complete both parts in the same iteration…. So I have one big story, but I split that story." Example 2: A tester explained: "If we know that we did not finish a story because it was not scoped out sufficiently, then we might try to add different parts to the same story like, you know, do part one, part two, so that the team may not be able to complete both parts in the same iteration so the two parts like, you know, stands across two or three iterations to get to the finish line for that story."
Splitting stories in response to problems	Example 1: During one meeting, a tester detailed an error he noticed in the team's code. This issue had been discovered while he was testing one story, but seemed unrelated to that story: "It's a completely different issue." So, he suggested that they mark the original story complete: "I'm good with this story." Then, they would create a new story to handle the problem in the next iteration. Example 2: A developer explained, "Sometimes you can say 'This might be two points' but once you start working on—you might think two points are sufficient. The coding part might be fine, but the testing part might be more… We don't change the story's points once we've given it a certain number of points. We'll try to finish it. If we are able to complete it in the same iteration, we will try to finish it. But let's say because of this testing part we need to test a lot of other things. Like that is an impediment. Because of this additional test we need to do, it should be a four-point story and we are not able to complete it in this iteration. We will create a new one in the next iteration for testing."

Table 4. Cycle Outcomes by Schedules and Point Delivery

Overwork?	Client Dissatisfied?	Cases
No	No	59 (72%)
No	Yes	1 (1%)
Yes	No	16 (20%)
Yes	Yes	6 (7%)

Figure 1. Example of Typical Development Cycle

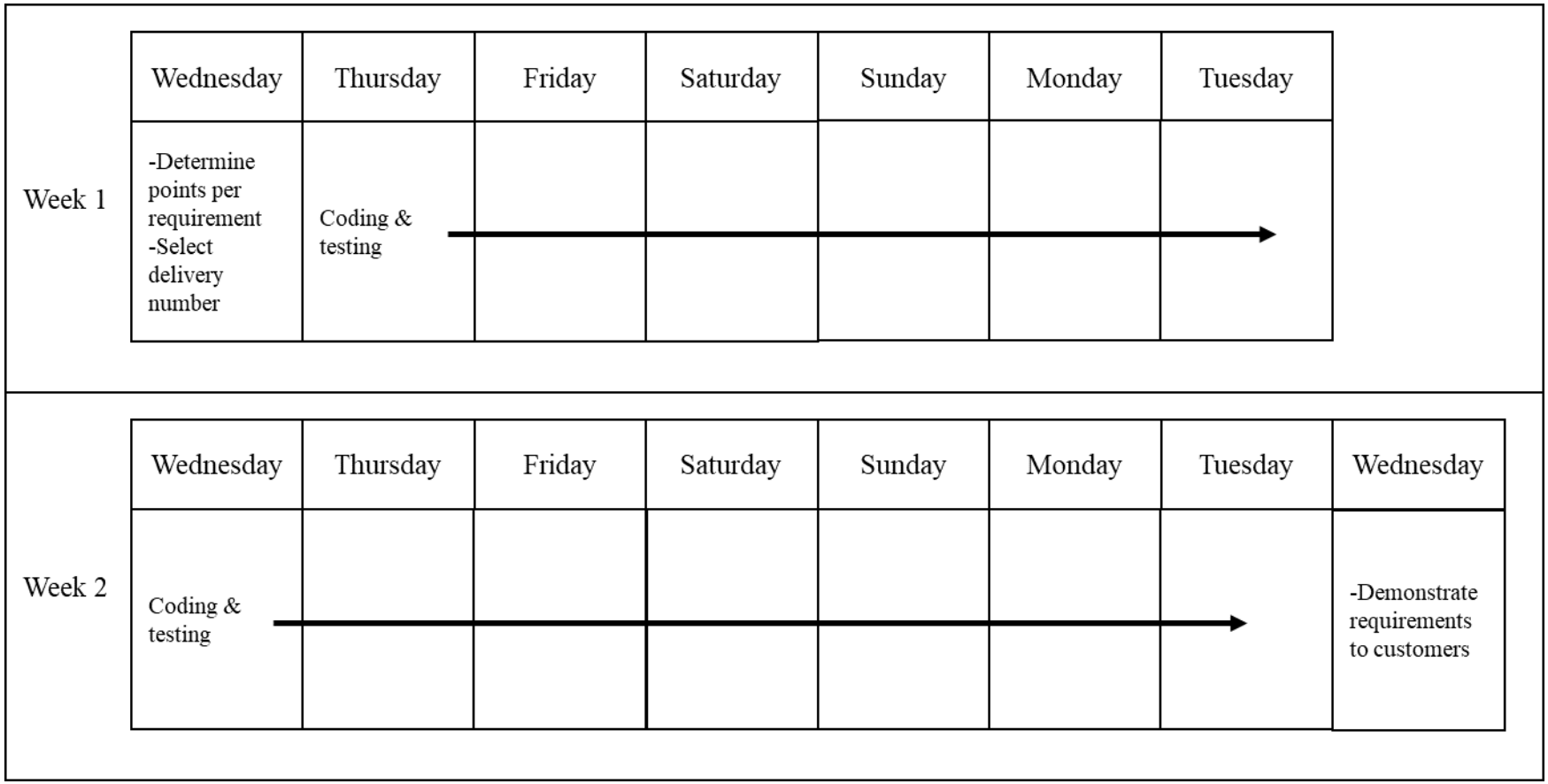


Figure 2. Process Model of Collaborative Commensuration

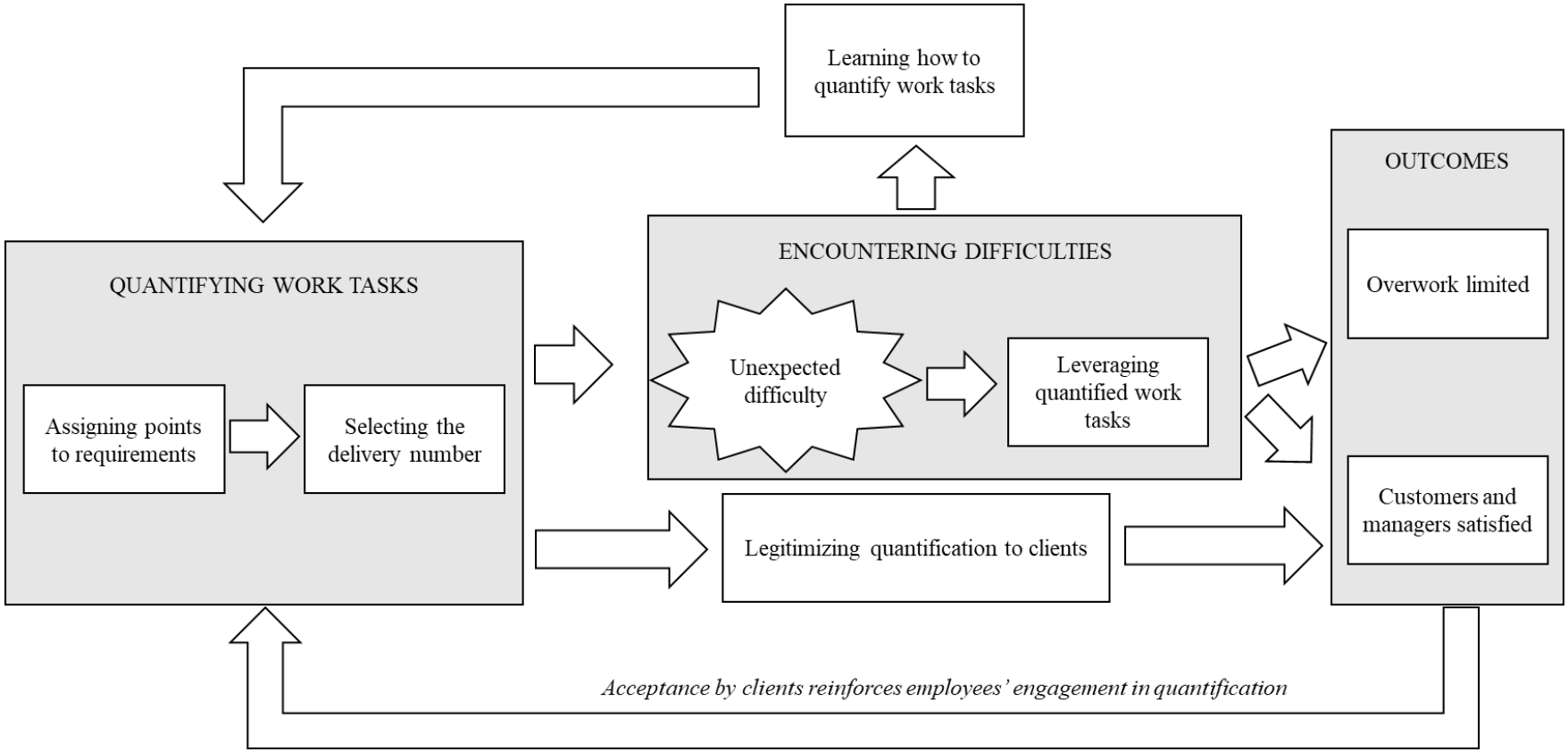


Figure 3A. Example of Slide Shown to Client During Client-Team Meeting

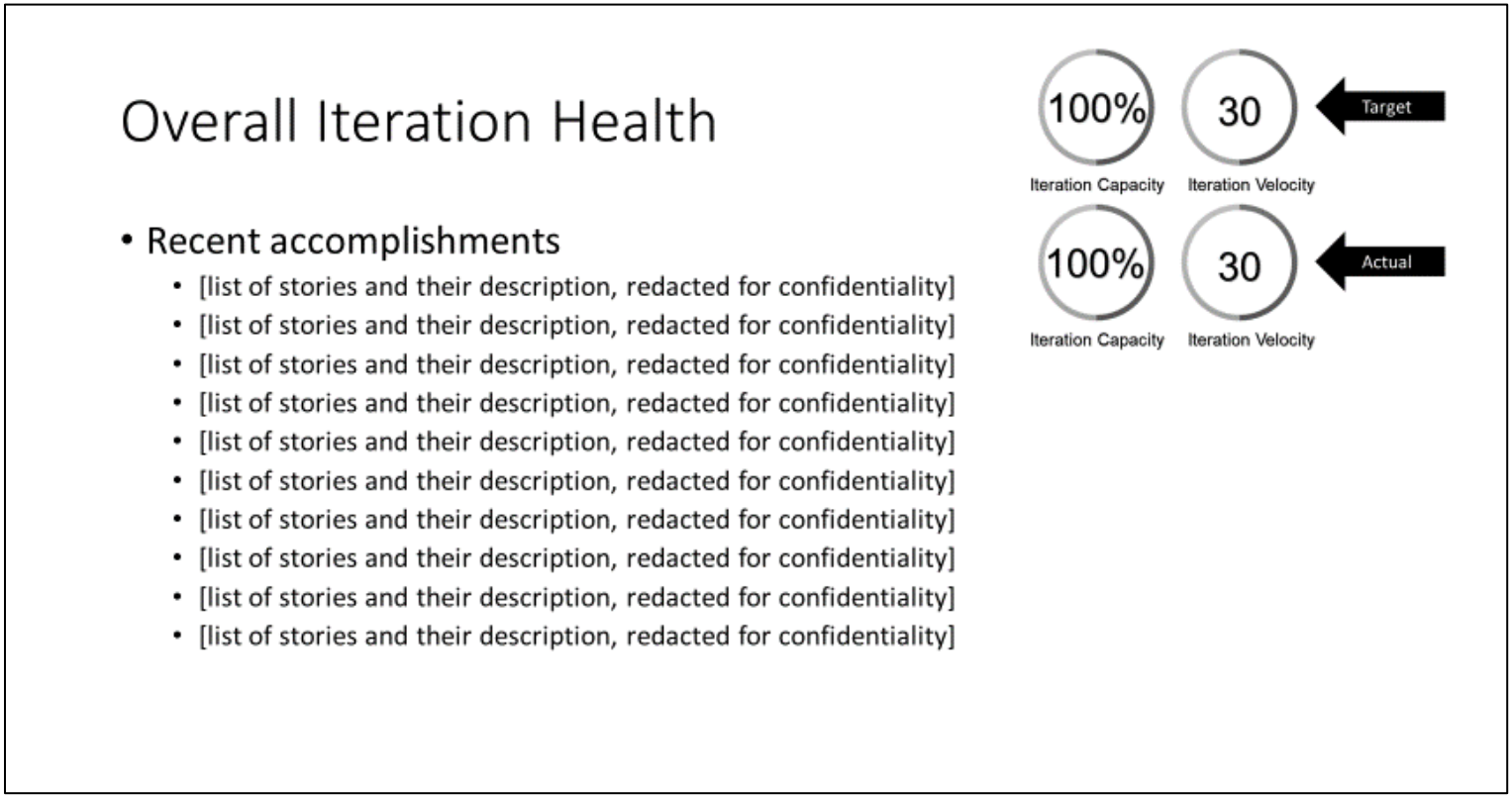


Figure 3B. Example of Slide Shown to Client During Client-Team Meeting

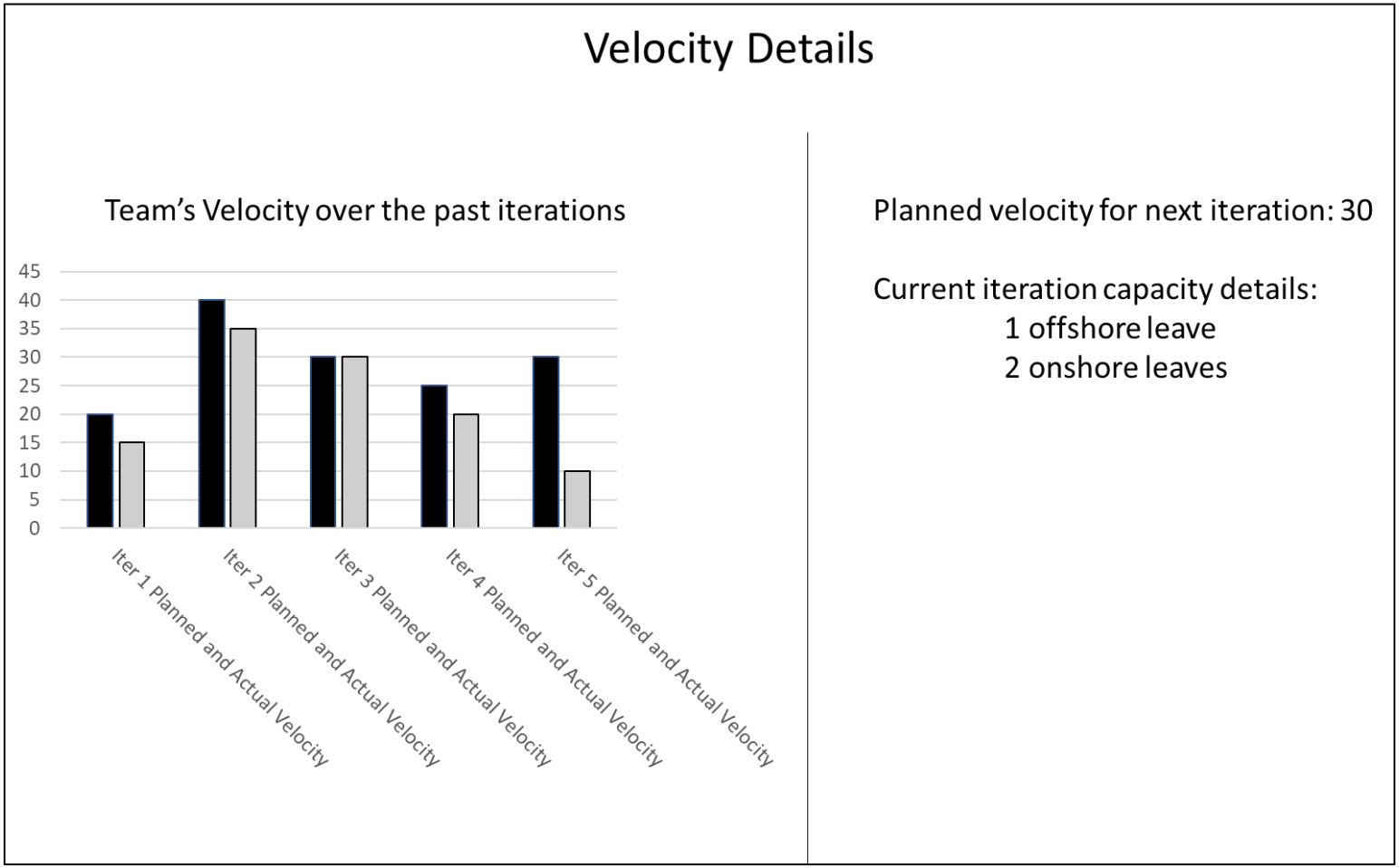
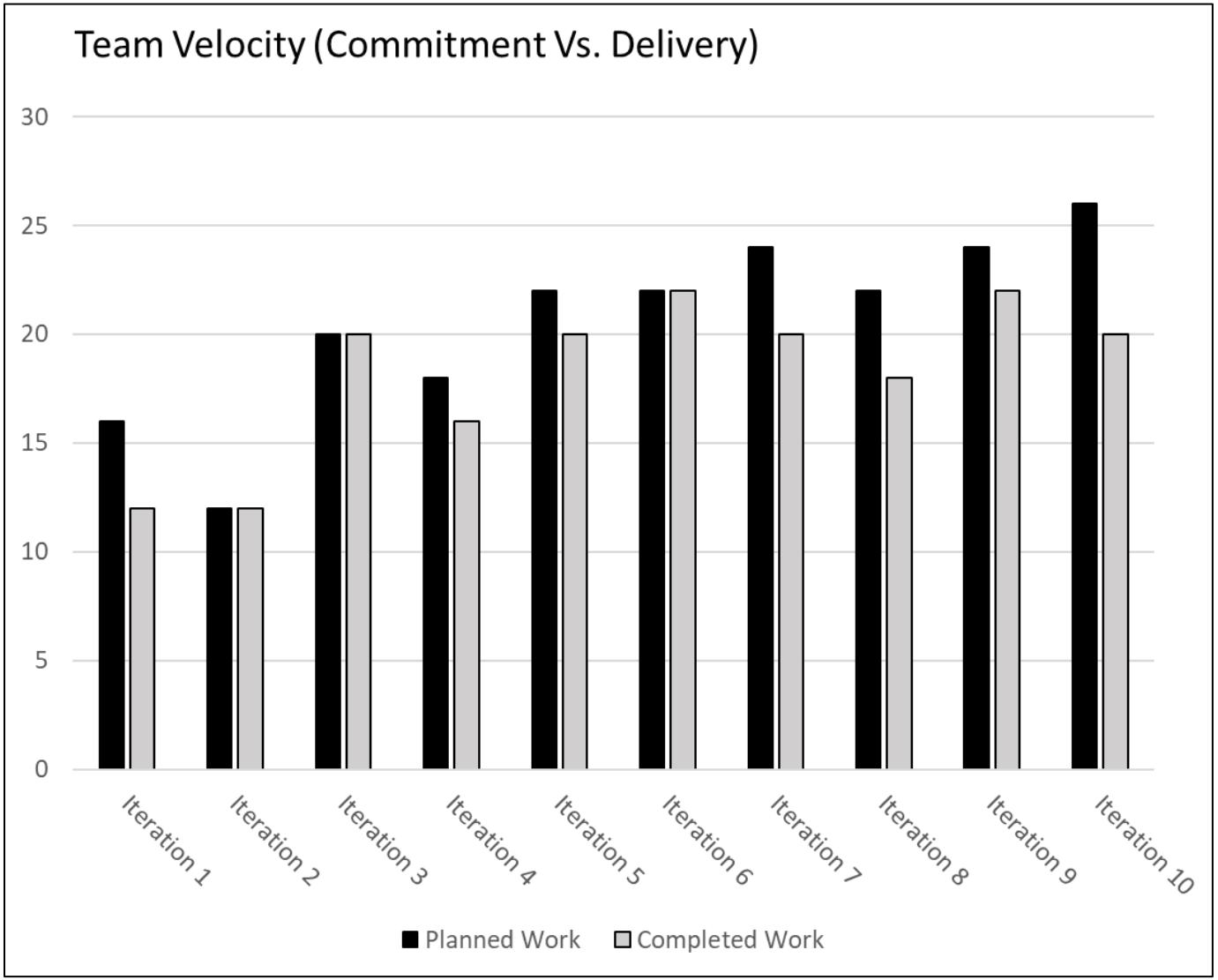


Figure 4A. Team Share Homepage

Figure 4B. Examples of Graph of Team's Work on Team Share



Chapter 3

CONNECTEDNESS AT WORK: THE RELATIONSHIP BETWEEN CONNECTEDNESS, TIME, AND GENDER

with Ruthanne Huising

Research on connectedness in the workplace has emphasized various individual and situational factors that support this connectedness. However, the role of time has not been studied. As professional workers put in longer and more intense work hours, it is unclear how they can maintain an intense working schedule while also developing connectedness to coworkers. We draw on data from three STEM organizations to show how time plays a key role in the development of workplace connectedness. In particular, we show how—against a backdrop of all-consuming work—professionals cultivate their own sense of self-oriented or "proper" time through a series of temporal coordinating practices, that is, ways of relating one's proper time to others' time. Depending on the particular practices workers engage in, they may either develop a sense of connectedness or disconnectedness. We also show how gender shapes connectedness by highlighting its role in individuals' experiences of proper time as well as temporal coordinating practices. We contribute to the literatures on connectedness and time in organizations by showing how time informs workplace connectedness.

Keywords: connectedness, time, gender, professionals

INTRODUCTION

Workplace connectedness refers to employees' sense of mutuality, positive regard, and vitality with coworkers (Dutton and Heaphy, 2003; Lee, Mazmanian, and Perlow, 2020). In recent years, scholars have highlighted the importance of connectedness to many positive outcomes for employees and organizations, including personal and career development (Colbert, Bono, and Purvanova, 2016) and workplace performance (Gittell, 2016). The importance of connectedness has been highlighted by the popular press (Boss, 2018; Kohll, 2018; Twaronite, 2019) and interest in connectedness has only increased with the COVID-19 pandemic, as researchers and practitioners try to understand how connectedness can be cultivated remotely (Black, 2020; Sandstrom and Whillans, 2020). Across this broad literature, scholars have emphasized the individual (e.g., Gibson, 2018) and situational (e.g., Mossholder, Richardson, and Settoon, 2011; Hinds and Cramton, 2013) factors that support employees' experiences of workplace connectedness.

Despite all of this theorizing, the role of time has not been studied directly in relation to connectedness. However, time is an essential underpinning to all human activity (Ancona, Okhuysen, and Perlow, 2001), and so it likely plays an important role in the development of connectedness. Further, we know that professionals are experiencing broad changes in their time. While time and work have always been connected (Thompson, 1967), the rise of modern information and communications technologies means that work can take place across a broader range of hours (Mazmanian, Orlikowski, and Yates, 2013). Professionals are now putting in longer and more intense hours than in previous decades (Cha and Weeden, 2014) and report feeling stressed and burned out (Beckman and Mazmanian, 2020; Kelly and Moen, 2020).

Ultimately, it is not clear how putting in long or intense hours for work task is at all amenable to the cultivation of meaningful connections at work.

In this study, we draw on data from three organizations of STEM professionals to identify how time plays a key role in the development of connectedness in workplace relationships, across these organizations. To do this, we draw on the concept of Eigenzeit or "proper time," which was first developed by Nowotny (1994), a scholar of science, technology, and society studies. It refers to time "for" oneself that is not directly determined by the broader temporal structures of work, family, or other institutions. It is I-time or individualized time, oriented to self-expression. Of course, proper time does not exist outside of social structures or norms, it is still influenced by these, and has in fact come about because of societal shifts that distinguish work time from individual-own time. However, it ultimately remains time where an individual feels self-oriented in relation to time, rather than time being directly determined by broader temporal structures.

We show how—against a backdrop of all-consuming work—individuals experience proper time, and how their particular experiences of this time inform whether they develop connectedness in the workplace. In particular, we show that it is through a set of temporal coordinating practices—that is, ways of relating one's proper time to others' time—that employees either develop workplace connectedness or disconnectedness. We also show how gender shapes employees' temporal coordinating practices—including if these practices allow for connectedness to blossom or flounder—as well as the role of home and family in shaping connectedness in the workplace.

We contribute to the literature on workplace connectedness by identifying how time shapes—and is shaped by—connectedness. We also contribute to the literature on time in

organizations by demonstrating how workers who experience temporal pressures in relation to work demands may, nonetheless, cultivate a sense of meaning and connectedness at work and home. Across both these literatures, we also show how connectedness and time are informed and shaped by gender in ways that limit how women are able to coordinate their use of time with colleagues.

CONNECTEDNESS IN THE WORKPLACE

Workplace connectedness—at the individual level—entails knowing coworkers as people and not just colleagues, awareness of their personal lives, exchanging more personal and intimate information, volunteering to help one another with work tasks, and related actions (Lee, Mazmanian, and Perlow, 2020). While the term "connectedness" is not used explicitly in much research, work within the domains of positive organization scholarship, social networks, and diversity touch on this and related concepts such as belonging and affiliation.

In recent years, scholars have highlighted the importance of connectedness to positive outcomes for employees. It helps individuals flourish and thrive at work (Spreitzer et al., 2005) and develop their sense of self and identity (Wrzesniewski, Dutton, and Debebe, 2003; Roberts et al., 2005; Sluss and Ashforth, 2007). It is linked to better health outcomes (Heaphy and Dutton, 2008) and facilitates coordination (Gittell, Seidner, and Wimbush, 2010), learning (Morrison, 2002; Carmeli and Gittell, 2009) and career and task support (Higgins and Kram, 2001; Casciaro and Lobo, 2008). Workplace connectedness is related to many positive outcomes for employees.

Employees' connectedness reflects a range of individual and situational factors. Individuals' ability to emotionally and cognitively engage with others—for instance, through

perspective-taking and empathy—strengthen connectedness to others (Stephens et al., 2012; Williams, 2012). Active engagement with colleagues—for instance, through joking around or disclosing work difficulties—also strengthen closeness to others (Sias and Cahill, 1998; Gibson, 2018). An individual's demographic similarity to others also influences connectedness (DiBenigno and Kellogg, 2014).

At a structural level, the organization shapes opportunities for contact amongst employees. Formal role assignments that require interdependence can facilitate connectedness with coworkers (Grant and Parker, 2009; Gittell and Douglass, 2012; Valentine and Edmondson, 2015; Yakubovich and Burg, 2019). Correspondingly, human resource practices that recognize and support role interdependence facilitate connectedness as well (Gittell, Seider, and Wimbush, 2010; Mossholder, Richardson, and Settoon, 2011). Physical proximity generates opportunities for interactions that ultimately allows for connectedness (Allen, 1984; Reagans, 2011). Accordingly, the organization of office space and extent of co-location also affects connectedness (Hinds and Cramton, 2013, Khazanchi et al., 2018). And interaction scripts that denote the ways in which employees should engage with others are also useful in building connectedness (Lee, Mazmanian, and Perlow, 2020). More broadly, particular organizational cultures or contexts—such as those marked by mission statements stressing the importance of teamwork and help—may encourage connectedness amongst coworkers (Golden-Biddle et al., 2007).

In contrast employees who experience workplace disconnectedness do not feel belonging in the workplace, have little interaction with coworkers except for what is necessary to complete work, and do not interact socially with colleagues (Ozcelik and Barsade, 2018). This isolation often comes about because differences in status and demographic characteristics trigger

exclusion (Kanter, 1977), create lower levels of comfort and enjoyment during interactions (Dumas, Phillips, and Rothbard, 2013), and limit self-disclosure (Phillips, Rothbard, and Dumas, 2009). Particular organizational cultures can also foster impersonality (Martin, Knopoff, and Beckman, 1998; Ashcraft, 2000) or impede employee voice and communication (Detert and Edmondson, 2011; Morrison 2011), ultimately leading to employees' disconnectedness.

PROFESSIONALS' WORKING TIME

While we have a broad sense of factors that support employees' connectedness in the workplace, what has yet to be examined in detail is the role of time. A few scholars have noted that there seems to be a connection between these two phenomena. For instance, researchers note that there is a particular cadence or rhythm that is entailed in getting to know others (Schinoff, Ashforth, and Corley, 2020), that the development of workplace relationships may require particular windows of opportunity (DiBenigno, 2020) or long periods of time (Sias, 2008). And some scholars hint that connectedness to others at work might help with the management of work and life boundaries, and by implication, time (Trefalt, 2013). However, beyond these higher-level observations, the nuanced relationship between time and connectedness has not been directly examined.

But studying the role of time is important when understanding connectedness. Time colors and shapes experiences at the individual, group, and societal levels. Time's centrality has been increasingly emphasized by those who study professionals' work experiences. In particular, at the same time as the importance of connectedness is emphasized scholars, professionals report that they have no or little time (Wynn, 2018). While those in lower-paying occupations regularly report not having enough hours to work (Kalleberg, 2011), the number of hours professionals

work, on average, has increased over the last several decades (Jacobs and Gerson, 2004; Cha and Weeden, 2014). While there are many explanations for this increase in hours, a primary cause seems to be that the need to meet organizational demands, including requests by clients and managers (Blagoev and Schreyögg, 2019; Perlow, 2012; Feldman, Reid, and Mazmanian, 2020; Padavic, Ely, and Reid, 2020). These increasing demands reflect the rise of modern information and communications technologies which allow work to take place across a broader range of hours (Mazmanian, Orlikowski, and Yates, 2013), as well as a lack of policy in the United States aimed at limiting work hours (Kelly and Moen, 2020).

As work expands and takes up more of professionals' time, there are potentially fewer hours for relaxing and socializing with others both within and outside of the workplace. Employees may become primarily focused on their work tasks, leading them to interact with coworkers in a rushed, harried way that can come across as disrespectful (Perlow, 1999). While it seems plausible that long hours at work could provide more opportunities for interaction and therefore connection among coworkers, it is not clear how this is the case amidst these countervailing pressures to focus primarily on "the work" (e.g., Michel, 2011).

GENDER, CONNECTEDNESS, AND TIME

While the connection between connectedness, time, and gender has not been delineated, separate groups of scholars have made it clear that gender is central to connectedness, on the one hand, and time, on the other. Women professionals experience isolation at work compared to white male colleagues, reflecting the fact that many occupations such lawyers, scientists, engineers, physicians, consultants, and accountants remain dominated by men particularly beyond entry-level positions (Tadros, 2016; NALP, 2018, NSF, 2018; Catalyst, 2020a, 2020b; KFF, 2019).

There are many popular press articles (Annis and Gray, 2014; Cooper, 2018; Sneaker and Yee, 2019) and scholarly accounts (Kanter, 1977; Ely, 1994; Gersick, Bartunek, and Dutton, 2000) describing women's experiences of loneliness, disconnect, and exclusion. Women also generally report fewer or lower-quality mentorship relationships compared to men (Ragins and Cotton, 1991; McDonald and Westphal, 2013) and are often less integrated into men's networks, leaving them peripheral members of the organization (Brass, 1985; Mehra, Kilduff, and Brass, 1998). Although some studies highlight exceptions to this general pattern (e.g., Colbert, Bono, and Purvanova, 2016; Merluzzi, 2017), the overarching finding is that women—particularly in male-dominated organizations common amongst professionals—are likely to experience disconnectedness.

Across the literature, women's lack of connectedness is generally accounted for in one of two ways. First, women may be excluded. For instance, when women are tokens—that is, minority members of larger social groups—they may be viewed through negative stereotypes and therefore not included in more social interactions (Kanter, 1977; Ely, 1995; Turco, 2010). Women are often viewed as lower status than men, and so others may not want to interact with them (Ridgeway, 2011). And because women's actions are often devalued, they may be relegated to less important tasks and excluded from more cohesive workplace relationships (Fletcher, 2001; Chan and Anteby, 2015). In addition to be more actively excluded, women may also experience disconnectedness because of homophily (McPherson, Smith-Lovin, and Cook, 2001). As described above, those with similar characteristics often feel an affinity with one another. These characteristics are often based on demographics including gender (Ibarra, 1992, 1993; Mehra, Kilduff, and Brass, 1998). In male-dominated workplaces, homophily means that women will have fewer opportunities to develop connections with others. In sum, women's

relative isolation—and its potential causes—are the focus of the literature examining the intersection of gender and workplace connectedness.

A separate stream of literature details the relationship between gender and time, and illustrates how women often experience a need to perform too many activities in the time they have available. Working mothers continue to do the vast majority of household labor and childcare, and this makes time a scarce resource (Hochschild, 1989; Craig and Mullan, 2011; Bianchi et al. 2012). Although studies show that professional women are increasingly outsourcing home care tasks to others such as nannies and cleaners, they remain in charge of coordinating how this help relates to their family's day-to-day activities (e.g., when the nanny will arrive, who will pay the cleaner) (Beckman and Mazmanian, 2020). Women report feeling stressed, exhausted, and burned out as they try to juggle these many demands (Rosenfield and Mouzon, 2013; Moen et al., 2016). This is not only because of the additional time demands placed on working mothers but because these demands—caring for other human beings—have immediacy and take precedence over other activities. They do not mesh well with the flexible and always-on demands that are increasingly required of professionals (Bailyn 2006).

METHODS

Settings

We examine connectedness and time by drawing on qualitative data from professionals in three STEM organizations: a university's STEM departments (MU), a STEM research consultancy (STEMO), and a pharmaceutical research company (PRU). At MU, we studied assistant professors in the physical and natural sciences, who were focused on publishing papers and advising master's students, PhD students, and postdocs. At STEMO, we studied scientists and

engineers who oversaw and advised on team-based technical projects for external clients. At PRU, we studied scientists who oversaw and advised on drug development projects with teams of coworkers.

The first author primarily collected the qualitative data included in this study. She observed and interviewed a total of 72 scientists and engineers across the three settings (summarized in Table 1). The organizations we studied were primarily comprised of men, with each organization having 70% or more men in professional positions. They were also primarily white, with over 80% of workers identifying as white.

Data Collection

This study began at MU, where we were interested in examining how assistant professors, with and without children, organized their time given the demands of work and home. 15 assistant professors were shadowed and then interviewed each at the end of the day. Each of these professors was also asked to complete time diaries on two separate days. To expand our sample, we then conducted interviews with four additional professors. We also had four second-round interviews with professors we had shadowed and interviewed earlier, in order to delve more into their experiences of time and connectedness. This sample comprised over 50% of assistant professors in the relevant STEM departments at MU.

---Insert Table 1 here---

Through an inductive analysis of the MU professor data, we identified patterned differences in attention to time (e.g., concerns about having not enough time versus openness to how time was used), depending on whether the scientist was actively involved in parenting young children or not. We also noticed how attention to time seemed to be linked to experiences

of connectedness. However, our sample of 19—although roughly half of the relevant population—was small. Therefore, we expanded the study by adding two additional sites.

The first site we added was PRU. Around the time we concluded that the sample of professors was too small, the first author had begun collecting data for a larger ethnographic project at PRU on the work of scientists. This project was framed broadly, and therefore as she interviewed employees, the first author collected data on temporal experiences and connectedness. In addition to interviewing and shadowing the scientists, she spent extensive time during the 14-month period observing interactions in PRU's common spaces and attending social events, project meetings, and office-wide meetings. She also had hundreds of informal conversations with PRU workers on their thoughts about time and connectedness. PRU employed 23 scientists. All, except one who did not want to be interviewed, are included in this study.

After completing data collection at PRU, the first author began a larger data collection effort on the work of scientists and engineers at STEMO. Like the research project at PRU, this project was framed broadly as being on employees' work. Therefore, the first author continued to collect data on experiences of time and connectedness to increase our sample size as well as the generalizability of our findings. Over the course of 26 months, the first author interviewed and shadowed employees, engaged in hundreds of informal conversations, and observed project meetings, office-wide meetings, and interactions in common spaces and social events. Through these means, she collected data on time and connectedness from 31 scientists and engineers. This represented roughly 13% of senior STEM workers at STEMO, reflecting the fact that STEMO was much larger than PRU and MU's relevant departments.

At all sites, the first author took extensive field notes as employees worked in their offices, visited colleagues, ate lunch, attended meetings, and conducted their daily business. These notes were typed up at the end of the day. Interviews were recorded when participants granted permission; otherwise, detailed notes were taken. All taped interviews were transcribed for analysis. Across the three organizations, initial participants were recruited via an organization-wide email. Additional participants were recruited as the first author met them at social events and project meetings. As the importance of gender and parental status emerged in our data analysis—described in detail below—we continued to sample in a way that allowed for variation on these characteristics until we reached theoretical saturation (Small 2009). For this reason, we oversampled on women (42% of our sample versus roughly 25% of these organizations' populations) to understand gender differences in experiences. We include additional details on our data collection in Appendix I.

Data Analysis

We analyzed all of our field notes and interview transcripts using inductive qualitative analysis techniques (Charmaz, 2006). As described above, our first round of data analysis focused on the MU data alone, and surfaced the importance of time as well as feelings of connection, closeness, and vitality with others at work—what we later realized was labelled as "connectedness" in the literature. While the first round of data analysis from MU guided our initial round of coding in PRU and STEMO data, we also searched for new, divergent, conflicting, and incompatible information. We coded for anything related to how workers thought about time, whether and how they managed time, and any time challenges they faced. We also coded anything related to

whether or not workers experienced connectedness, as well as anything that seemed to support connectedness (e.g., office location, collaborations, task dependences).

After this major round of data analysis, we noticed that workers seemed to engage in practices of relating and coordinating their own time to others, which ultimately bridged their experiences of time with their experiences of connectedness. We labelled these practices as "temporal coordinating practices." As we analyzed our data, we also engaged with various literatures on time including management, sociology, geography, anthropology, and science and technology studies. As we read this research, we were struck by the concept of "proper time" (Nowotny, 1994) and how it contrasted with coordinated forms of temporal action that were constrained by institutional temporal structures (Sharma, 2014; in the management literature see Orlikowski, and Yates, 2001). Proper time, we noticed, seemed to map onto the differences in temporal experiences described by our participants, and we adopted it as a central concept.

Through additional cycles of analysis, we slowly came to develop more systematic categorizations and descriptions of our three central concepts: proper time, temporal coordinating, and connectedness. In regards to proper time, as we coded our data, we identified two key experiences, which we labeled "proper time as present" and "proper time as anticipated." We found that there were four dimensions along which these two experiences varied (see Table 2 in the findings). We then went through our data again and examined each individual separately, studying their particular experiences along these four dimensions. We found that most individuals tended to experience either "proper time as present" or "proper time as anticipated" along all four dimensions, and classified them as one or the other category accordingly.

Similarly, we developed our conceptualization of the two sets of temporal coordinating practices through our inductive data analysis. In particular, as we coded the data, we found that there were two sets of practices—"synchronizing" and "separating" —with each set being comprised of four interrelated practices (see Table 3 in the findings). We then went through our data again and examined each individual separately, studying their particular enactment of these four practices. We found that most individuals tended to consistently engage in either "synchronizing" or "separating" practices, classifying them as one or the other category. That is, we found that most tending to draw on one set or the other of practices, although of course individuals occasionally drew on the opposite set.

Finally, we developed our conceptualization of connectedness by iterating between or data and the literature (particularly Lee, Mazmanian, and Perlow, 2020). We ended up focusing on the four dimensions listed in Table 4 in the findings. Similar to proper time and temporal coordinating, we went through our data again and examined each individual separately, studying their experiences of connectedness along these four dimensions. We found that most individuals tended to experience either connectedness or disconnectedness along all four dimensions, and classified them as one or the other category accordingly.

Through our sorting and classification of individuals' experiences regarding these three central concepts, we noticed that there were two general "paths" individuals experienced regarding proper time, temporal coordinating, and workplace connectedness: present-synchronizing-connectedness (N=41) and anticipating-separating- disconnectedness (N=21). These two common patterns of experience are the focus of our paper, and are described in detail in the findings section. Of the remaining ten individuals, five had a hybrid experience and five had an experience that was heavily shaped by various other aspects of work and life (e.g., being

raised in and still adopting non-Western temporal norms) that did not apply to anyone else in our sample. We detail these ten individuals' experiences in Appendix II.

Through our cycles of analysis and categorizations of individuals, we also identified that gender played a key role in workers' experiences of connectedness as well as experiences of time. We performed targeted analyses looking at how men and women experienced time and connectedness differently. Parenting and childcare also emerged as important in shaping workers' experiences of time, and so we also analyzed our data focusing on men and women's varied caregiving experiences. Further, we performed more targeted analyses, for instance, to examine the role of variables such as age and seniority. We detail these analyses and their results in Appendix II. Throughout our data analysis process, we wrote extensive memos and vignettes as we tried to understand the relationships between time and connectedness.

FINDINGS: TIME AND CONNECTEDNESS

Employees across our three settings experienced intense pressure to work long and intense hours. Against this backdrop, we found that employees tended to have one of two experiences regarding time and connectedness. Some workers experienced proper time in the present—that is, unfolded inside the workplace—and synchronized their time with colleagues' time. They ultimately experienced workplace connectedness. In contrast, other workers experienced proper time as anticipated—that is, it would unfold outside of the workplace—and responded by separating their time from their colleagues' time. They ultimately experienced workplace disconnectedness. We first describe these two sets of experiences (Figure 1), before elaborating on the gendered nature of workers' experiences.

---Insert Figure 1 here---

DEMANDING PROFESSIONAL WORK

Individuals in our study noted that their work could "consume" all of their time. For the professors this was because—as many explained—there was always more research that could be performed. Given that these professors had not yet received tenure, there was a pressure to work and publish: "You always have tenure looming ahead of you, so you're always wanting to do as much as possible so that you don't lose your job in five years." In contrast, at STEMO, workers felt pressure to work long hours so that they could produce products that satisfied their clients: "With work time, it's all about does your customer like you? Is the customer happy with you? Everything revolves around: is the customer happy?" And at PRU, there were tight deadlines to meet so that drugs could be developed quickly while remaining within budget: "We have a budget and a time limit, and senior leadership will come back to us eventually and say, 'Show us what you've generated.'"

Yet, despite these temporal pressures, workers did not describe long days without rest or pleasure. Rather, they were able to cultivate connectedness. For some, this was in the workplace. For others, this was at home. The remainder of this paper traces these two sets of experience, as informed by individuals' experiences of proper time, that is, time oriented to their own pursuits and not directly structured by work demands.

EXPERIENCES OF PROPER TIME

Against this backdrop of demanding work, individuals had one of two experiences of proper time in their organization: as in the present or anticipated. Table 2 contains summaries and additional examples.

---Insert Table 2 here---

Present Proper Time

For some workers, proper time in general was to be experienced through enjoyable and meaningful activities. Sometimes, these activities took place outside of work. Justin explained how he filled his spare time: "I like watching TV shows or going to bars and restaurants. Or my girlfriend and I ride our bikes to the farmer's market, as a hobby." In such moments, Justin experienced his time as his own, filled with relatively carefree engagements with friends and his significant other. In addition to proper time unfolding outside of the organization, these individuals also experienced proper time within the workplace. Ethan explained one example of how this took place:

> "There's this thing that a couple of employees that I do, which is we basically chill for like maybe like 15, 20 minutes each day, doing nonsense. We talk about [mathematics and logic] problems that have nothing to do with our work… I do look forward to that because it's sort of a way to step away from my work."

For Ethan, time spent working on "nerdy" problems with colleagues was an enjoyable break from the daily grind. In these moments, his time was his—and his colleagues' own—rather than focused exclusively on work tasks.

Correspondingly, these workers praised their organizations if and when they supported opportunities for enjoyable workplace activities. As Cynthia described, she appreciated how PRU offered a "buffet" of intelligent colleagues to interact and "shoot the breeze" with:

> "I love being surrounded by all these people who are experts in their fields. They are reading journal articles all the time. I am like a kid in a candy store. It is amazing. I can

just go up and say, 'So what's going on with [research topic]? What's going on with [other research topic]?' Anything. It's just incredible. That is really fun."

Brandon at STEMO similarly noted, "I like how my office has a lot of things, like culturally, to keep people engaged. It makes overall the atmosphere of working here better." He listed some examples of events his workplace hosted: "Outings to go bowling, everybody after work going to get a beer and just chatting for awhile, a community gardening day event, social lunch events, somebody talking about a hobby they have and just discussing this hobby for half an hour." Whether planned by the organization or coming about more "naturally," these employees valued spending time in enjoyable activities at work.

These individuals also tried to "protect" their proper time from boring or dull activities. As Marcus explained, "My New Year's resolution is to try and limit the number of meetings I am in. I am trying to be more efficient… I try to limit wasted time." He skipped meetings he found long and pointless, such as the biweekly meetings for a project team he was only peripherally involved in. And when a colleague who regularly emailed him articles on research totally unrelated to his own, he deleted the emails without reading them. As Marcus explained angrily, "Why is [colleague] even sending me this? He will get junk mail but it will say 'Artificial Intelligence,' so he will forward it to me." These emails were useless for Marcus, and as he viewed it, a waste of his time. Colleagues who were viewed as dull, irritating, or rude were also avoided. Todd spent one day collecting his colleague-friends to go out to lunch, but telling them to make sure Anita did not notice them leaving as he did not want her coming with them. As he explained, "My department is great, except Anita, who is unpleasant."

In this light, engaging with colleagues—who were liked—was viewed as a good way to pass time. As David explained, "I like going out with my colleagues for lunch. I go out with

them very regularly, like three or four times per week." He added, "It's a fun thing I do." Passing time with colleagues was enjoyable for David. This meant, he noted, that he ate lunch more regularly with his coworkers than his girlfriend, who worked at an office near his own. But they still had some time late in the evenings to catchup. Similarly, Richard explained, "I love working with and talking to my coworkers, they are across the board talented people." He valued time with his colleagues, regularly going out with them to the local Mexican restaurant, playing foosball games together, or simply watching sports with them on the lobby television.

Anticipated Proper Time

Other workers viewed proper time as something to be experienced external to organization. Dawn wanted to spend time with her two young children. As she noted, "In the extra time that I have, my husband and I do things with my kids." Whereas before having her children, she might have socialized with colleagues on a Saturday, now weekends were to be devoted to children: "Now on Saturdays, my husband and I go do something like take the kids to the science center or something like that. It's usually kid-based stuff." Brent similarly explained, "I love getting my kids ready for school, just getting that time in, and then helping them with their homework. So I take care of them in the morning and then sometimes come home early so I can help them with their homework." As in these two examples, in our sample workers with this orientation towards proper time were all actively involved in their children's day-to-day care.

When at work, these workers acted in anticipation of this time with children. One way individuals "protected" their proper time from workplace activities was to enact organization and structure, often taking the form of common time management practices. Julie explained, "I actually got better at managing time after I had a kid. Because [laughs] you have to take care of

your child, regardless of what other things come up." She now scheduled all of her activities: "I always book my schedule with meetings and events." This included her children's activities, so she could make sure to attend them rather than scheduling a work meeting at the same time. She explained how she tried to "write down goals and organize them into priority" so she could get her work done while also having time for her children. Similarly, as Stephanie explained, "I work between forty-five and fifty hours a week. I used to work a lot more. I used to work like sixty, seventy hours, but that's not possible with kids." Because she wanted to spend time with her children—taking them ice skating, out to ice cream, or simply watching television with them at home—she did not work as long hours. She explained, "You are the boss of your time . . . What do you care about, what do you put in your schedule, and what do you actually work on? These are choices that people make." Stephanie had made a choice; she cared about her children, and prioritized time with them.

For these workers, activity that is not primarily work-focused threatened to impede on their time with children. "Wasting" time at work—for instance, by browsing the internet—was to be avoided. As Jonathon explained, "The Internet can be a huge time sink. I mean it's just like so much, so much [pause] energy, effort, time, just gets sort of burnt up into nothing." He added, "You should determine what your priorities are, and make sure the time you spend is directed towards accomplishing your priorities." Internet browsing was not a priority. Similarly, as Heather explained, "I have commitments to my children." While she attended all of her work meetings, to make time for her kids she skipped out on more social work events: "I missed the office Christmas party… There are just certain things that take priority. You have to gauge that." Angela, when asked if she would eat lunch with colleagues, laughed. "I always bring my lunch, and most of the time I eat alone in my office." When asked why, she explained that she was

trying to get her work done to spend time with her son in the evening. She noted, “It’s important to go home and [laugh] enjoy your home life, or your hobbies, or whatever.”

As in the examples with Heather and Angela, interactions with colleagues that were not primarily work-focused were largely eschewed to preserve anticipated proper time. As James explained:

> “It wasn’t really like I sat down and made this decision one day, but it was just kind of like bit by bit that I realized the most efficient way to run my life seemed to be not putting my energy into spending time with people in my department… It’s like a break from work, and I would rather save up my break-from-work time for being home with family so I don’t have to feel like I have to work in the evening. I try to save my non-working time for them.”

Similarly, when asked why he ate at his desk—rather than with his coworkers—Shane simply quipped “time.” He wanted to eat “quickly” so that he could spend more time with his young daughter: “I really just love having extra time in a week with her. And I can, as long as I get my work is getting done.” Family moments, rather than collegial interactions, were prioritized by these workers.

TEMPORAL COORDINATING PRACTICES

Experiences of proper time within organizations shaped if and how workers tried to coordinate their own proper time with coworkers. Those who experienced present proper time tended to synchronize their time with colleagues. In this sense, I-oriented time was transformed into we-oriented within the organization. In contrast, workers who were attempting to protect their proper time for outside of the organization tried to separate their time from coworkers’ time. Table 3 contains summaries and additional examples.

---Insert Table 3 here---

Synchronizing

Workers who experienced proper time in the present regularly synchronized their proper time with colleagues' time through two subsets of practices. First, they crafted opportunities for encounters to occur and activities to coevolve through practices we label as "sparking" and "signaling." Second, they accepted the "natural" ebb and flow of time passed with colleagues once interactions were underway, through two practices we label "shifting" and "meandering." These four practices collectively allowed workers to coordinate their time with that of colleagues.

These workers *sparked* opportunities to spend time with colleagues by responding enthusiastically to colleagues' casual conversation, office drop-bys, or hallway greetings, and initiating such activities themselves. Charles almost always talked with his colleagues immediately following formal project meetings. While "officially" the meeting had ended, he would casually ask his colleagues if they had recently read any interesting or thought-provoking academic papers. In turn, colleagues would ask him similar questions. These informal conversations usually ended when whoever had booked the conference room next arrived and asked the group to leave. Typically, this was 15 or 30 minutes after the end of Charles' official meeting. Similarly, Marcus always greeted colleagues as he walked around his office's hallways. On one typical day, he engaged in hallway chitchat with four coworkers, and also stopped by colleagues' offices seven times to chat socially. When people were working from home for the day, Marcus would call them—without prompting—to see how they were doing: "I'll actually

call, you know, I'll treat it like stopping by the office. I don't hesitate to do it." He initiated interactions with colleagues, and they passed time together.

To create opportunities for spending time with colleagues, these workers also often *signaled* to coworkers their openness to interaction and sought indications of colleagues' availability as well. There were several common ways workers signaled availability. One was to work with an open door. As Jessica described, "I have my door open most of the time." She added, "I want people to come by. So I'm trying to keep my door open." Jessica wanted to encourage interactions with colleagues: "Often it will be other professors popping by to say hello and see how things are going… It does not bother me. It's welcome. I want my door open because I'd like more of that." When asked if she felt interrupted, she explained, "Yeah. I mean I'm always doing something so I'm always interrupted. But if it's a colleague, I will just drop whatever I'm doing. I want to be as open as I can to interactions right now. I would like to get more interactions than I'm getting I think, so I can form connections." Notably, if Jessica was teaching, she would close the door the day assignments were due so that undergraduate students would not ask her too many questions. It was time with colleagues—and not just time with anyone—that she valued. Other workers signaled availability through electronic means. Each morning, Ian signed on to his company's messaging software and remained signed in until the end of his work day. A green light next to his name signaled his availability to others, and colleague-friends would call him on the software. If he missed their call—for instance, because he was in a meeting or talking to someone else—he would return it as soon as he could. Similarly, he could tell if colleagues were available by the green light next to their individual names.

When interactions expanded in time, taking more minutes or hours than anticipated, workers *shifted* work or home activities to later in the same day, week, or month to make more time for colleagues in the present. Dustin, for instance, planned to finish his data analysis and then go to the gym for a 6 pm workout. However, when packing up his bag, he began chatting with his coworker about a technology from a rival company, which had been subject to dispute in the press. Was this technology as good as the company claimed? Or were there unacknowledged limitations? They chatted for nearly an hour before the conversation wound down. Then grabbing his gym bag, Dustin locked his office door and headed out for a late evening workout. Dustin's gym trip was pushed back to later in the evening, and his data analysis had been moved to the next day. In a similar example, Aaron planned to leave the office by 2pm one day to meet his wife. However, during the day he had three ad-hoc discussions with colleagues—ranging from 20 to 30 minutes—about exciting developments in his colleagues' work and their research field at large. Aaron eagerly participated in these discussions, wanting to hear more about the work of other researchers. As a result, he ended up not leaving his office until 3pm, an hour after he was supposed to leave. His wife waited.

These workers allowed conversations to *meander* and dwell on various topics, enabling proper time to expand and be experienced in the present with colleagues. Tanya's colleague greeted her in her office one morning at 8:48 am. She asks him how his grandfather is doing—he was recently hospitalized. The coworker explains that his grandfather was "pissed" about being injured—as Tanya knew from past conversations, Grandpa liked to be up and active—but on the mend. They then talked about where their other colleague was as she was not in her office yet. Tanya mentioned that this colleague went away for Easter. The original coworker then explained that he and his brothers were coordinating plans for their own Easter weekend. He detailed what

cities both brothers lived in. Tanya already knew the general area they were from, but not the particular towns. The coworker then picked up a small, 365-day calendar on Tanya's desk, and read the daily joke from it. They both laugh, and agree it is funny. The interaction lasts 10 minutes in total. In a similar example, at 12:30pm Henry was walking back to his desk from a work meeting with a colleague. However, on the way back, the two noticed March Madness on the lobby television, and stopped to watch it together. As they were watching, a third colleague joined, and Henry asked her about the soup she was eating for lunch. A fourth coworker joined and Henry gossips with him about invitations to a social work outing; should an employee who handed in her two-weeks' notice be invited? Then a colleague stops by and says there is going to be a foosball match—would Henry like to watch? He agrees, although he says he cannot stay the entire time because he has a meeting. He leaves the match at 12:56pm. A work-related discussion with a colleague had evolved into various casual conversations, that spanned nearly 30 minutes.

Separating

Workers who experienced proper time as anticipated—that is, something to take place outside of organizations instead of within them—separated their time from colleagues' time in two ways. First, to preserve their proper time, they tried to limit encounters with colleagues that they viewed as peripheral to work including social conversations and non-urgent work-related matters, through two practices we label "avoiding" and "hiding." Second, they tried to "optimize" the timing, length, and ordering of essential interactions so that they took less time, through two practices we label "organizing" and "focusing."

These workers rarely initiated interactions with colleagues on non-work-related topics and tried to *avoid* colleagues' attempts to spark such conversations. Shane explained that he did not invite colleagues to lunch:

> "I don't really have lunch with people that I regularly work with. I eat at my desk to be quick and save time. I wouldn't ask someone 'Oh, do you want to have lunch with me?' I just try to eat much more quickly. So I'll eat lunch at my desk in 15 minutes and keep working instead of taking like half an hour or something."

Although workers like Shane rarely initiated social interactions, it was inevitable that at some point a colleague would knock on their doors, strike up a conversation in the hallway, or invite them to an office party. In such situations, workers tried to end the encounter by either making an excuse to leave or simply rejecting the invitation to interact. At the end of work meetings, Susan's colleagues would often discuss various matters not directly related to their research projects, such as newly published papers or gossip about competitors. Occasionally she would chat for a few minutes with them, but often she mentioned that she had work she needed to do, stood up, and left the room while others will still in the middle of a conversation. Time with colleagues—specifically time passed socializing—was viewed as unnecessary and eschewed to preserve time.

Many of these workers felt awkward flat-out refusing or frequently excusing themselves from time with colleagues. Further, even encounters that were quickly "nipped in the bud" constituted an interruption to their working time. Therefore, when they needed to focus, these individuals worked in spaces where colleagues could not easily find them. We label this practice *hiding*. Tara noted, "I'm always working from home." She elaborated, "Strategy-wise, I tend to do most of my intensive work at home. When I am home is when I can really write something

that is difficult. I can get a lot done." No one interrupted her when she worked at her kitchen table. Avoiding interactions also required not eating, walking, or standing in public areas for prolonged times. Craig complained that if he ate lunch in the cafeteria, his coworkers would inevitably stop by and want to chat. Even when he sat in the far corner of the cafeteria, someone would come and talk to him. So, he usually bought food and then walked directly back to his office. He explained, half-joking and half-serious, "I know there is a mother's room. We should have a [senior technical worker's] room where we can go. For one person at a time, and a key card required to enter." These workers, then, sought ways to avoid social interactions.

Individuals tried to *organize* work-focused interactions in the order, length, and frequency that took up the least amount of time while also adequately addressing the task-at-hand. Susan made sure her main project had weekly meetings where she could ask questions of all her colleagues at once, rather than having to seek them all out individually. After establishing these meetings, however, she became concerned about their frequency. When meetings occurred too often, she realized that conversation often shifted to off-topic discussion, which she wanted to avoid: "If a meeting is just chatting, I usually [laugh] don't go." But when meetings occurred at biweekly or monthly intervals, the team did not coordinate enough and work slowed. She found that weekly meetings were the "sweet spot": "With just weekly meetings, things are on track." Shannon, another scientist, learned that when she had questions for particular colleagues, she needed to visit them in person because they never checked their email: "Some people don't even respond to emails, but if I go and I find them, we can talk." These in-person visits were necessitated because she needed information from colleagues quickly, and this was the fastest way to get it. As shown by contrasting these two examples, the most efficient way to organize interactions with coworkers depended on the nature of the work. What was common, however,

was the attempt to arrange interactions so that they were short but adequately addressed the task-at-hand.

Despite workers' efforts to pre-emptively avoid offhand conversations that threatened their time outside of the organization, such encounters inevitably occurred. In response, workers actively intervened to *focus* attention to the task-at-hand to preserve valuable time. One common tool used to redirect a conversation was to remind coworkers of how many minutes had passed or were left in a meeting. Amber, for instance, emailed, printed, and handed out an agenda for each project meeting she ran. Each topic was listed, with a corresponding number of minutes. When someone mentioned something that was off-topic—typically regarding a part of the project that Amber did not view as relevant to the current conversation—she thanked them, noted the time, and then read out the title of the next agenda item. By pointing out the time, she highlighted that there were only a few short minutes to address a particular work task and redirected attention to that work. These individuals also tried to focus interactions into smaller chunks of time by emailing coworkers instead of talking in person. In general, they noted that others were less likely to bring up off-topic conversations in emails, which tended to be more direct than in-person conversations. April for instance emailed a Doodle scheduling poll to her coworkers to setup a meeting. Instead of having to go speak to them each individually—allowing for the possibility of casual chatting—it was quicker for her to simply send out one focused email. As she noted more broadly about email: "I just send my coworkers a message and they can get back whenever it's convenient to them." It cut the banter.

EXPERIENCES OF WORKPLACE CONNECTEDNESS

In this section, we describe how workers who allowed their proper time to intertwine with coworkers' time came to experience a sense of connectedness with colleagues. In contrast, those who regularly separated their proper time from coworkers came to experience disconnectedness at work. Table 4 contains summaries and additional examples.

---Insert Table 4 here---

Workplace Connectedness

When workers synchronized their proper time with colleagues' time, they developed connectedness in the workplace. For one, they shared sensitive information, such as details about their personal lives and office politics with coworkers**.** Ethan, for instance, griped to his coworker and office neighbor about how frustrating one of their senior colleagues could be. He was never available to help with work, and came off as entirely absentee and unavailable. Ethan also gossiped, in hushed voices, with his colleagues about several specific coworkers who just tried to find large, well-funded "whale"-like projects, but then did nothing on them. Similarly, when Wendy experienced difficulties in her personal life, she often shared them with colleagues. As she explained:

> "I'll talk through the stress I feel about some stuff day-to-day. Those conversations are not really formal, but it's been nice to bounce concerns off each other... I have a really good working relationship with some of my colleagues, whom I consider a friend and not just a colleague. So, you know, I'm fortunate that way that we can talk about non-work-related stuff."

She shared sensitive information with her coworkers, and they in turn shared it with her.

Relatedly, these workers came to have a detailed knowledge of colleagues' professional and personal lives, and for others to know them personally and professionally as well. Virginia, for instance, learned about her colleagues' various personal struggles such as uncooperative teenagers, ill spouses, and house purchases. In turn, she shared with her friends when her sister had severe health difficulties. Rodney also knew his coworkers very well. He described their various technical skillsets, career difficulties, and personal problems. He noted, "I'm always there to lend an ear if someone needs to talk." When a new position became open in their unit, he thought immediately of his colleague Fatima, who was currently in the unit but had "grown out" of her current position. Because he knew her so well, he immediately knew she would love the new position, and recommended her to their boss.

These workers also regularly exchanged advice, help, information, and resources with colleagues, outside of formal work interactions. Chemist Mary met with her biologist colleague Gary on Wednesdays at lunch for half an hour to an hour, despite little overlap in their project work. During these meetings, the two bounced ideas off each other, hoping to gain insight into one another's approach to drug development. In doing so, they were exchanging advice and helping to advance one another's independent project work forward. Similarly, when Charles needed more funding for a particular project, he asked coworker Richard if he had any extra funds in his own project budget. Richard said yes, and transferred some of his project funding to Charles. The two were friendly with one another, and Richard explained that he viewed such a request as a friend asking for a favor, which he was happy to support.

These workers also felt like fully integrated members of their department, viewing colleagues as "good friends," "mentors," "best friends," and "colleague friends." As Lance noted, "I've become friends with my coworkers... I go to lunch with them each day." And he saw

them outside of work as well: “I hang out with some of my colleagues on the weekends too.” When Lance was out of work from a month and could not see them, he explained he was “frustrated”: “I miss being able to interact with people as I normally would… Just going to have a conversation with them or walking down the hall to coffee.” Lance missed his work-friends. Todd similarly explained, “My colleagues are the people I want to hang out with. That’s why I like being at MU. They are my friends.” He went on to explain, “We choose to spend time together, because we are all here together.” Colleagues were friends, and as friends, Todd continued to try to spend time with them. His connectedness to them reinforced his orientation of proper time as focused on workplace interactions. The relationship between time and connectedness was reciprocal.

Notably, for some of these workers, their connection to colleagues was their central form of connectedness across their lives on a day-to-day basis. Todd, for instance, went on to explain, “My colleagues and I go to lunch almost every day. I view lunch as a big part of my family-friend-life time, because often at home my wife and I will just end up working.” Lunch time was when work was set aside for enjoyable connections with others. While he spent time with his wife after work, often their evening hours became devoted to work because they both had busy professional jobs. So, instead, proper time was passed in the workplace. As Todd noted regarding his lunch time with coworkers: “That should be considered part of my spare time, not work time.” Similarly, Rachel—who lived alone and had a long-distance boyfriend—explained how her weekends were spent working: “I’ll work at least one full day on the weekend, and the other will be spent with a mix of work and household chores.” Even when talking with her boyfriend on Skype, they both worked: “We’ll both just talk while working on something that does not require our complete and total attention.” It was only with her work-friends that she regularly

paused work time to connect deeply with others: “I probably go out with [work-]friends like once a week, and we eat and drink wine, and blow off the next morning. But other than that, I’m pretty much here [in the office]. [laughs] Or working at home.”

Workplace Disconnectedness

Those who regularly separated their proper time from interactions with colleagues experienced disconnectedness in the workplace. Conversations with colleagues often focused on work-related matters and did not entail the exchange of anything particularly personal or sensitive. Russell explained that the colleague he talked with the most was a seminar co-organizer. While they usually quickly exchanged greetings when meeting—for instance, asking how one another’s weekend was—their conversations revolved around the seminar: “We just discuss administrative stuff.” Similarly, Shannon occasionally spoke with one coworker in her unit about non-work matters, but otherwise her conversations with coworkers were work-focused. As she noted, “I’m mostly just attending meetings.” Her conversations, accordingly, were focused on project work rather than anything personal or sensitive.

Correspondingly, these workers did not know personal or professional details about their colleagues and their colleagues did not know them well either. Tyler could not describe his coworkers’ current research projects nor interests. And when talking to his coworkers, they struggled to describe what exactly Tyler did on a day-to-day basis besides the broad tasks of research and teaching. Even things as basic as haircuts were sometimes lost to these workers. Amanda noted, “I don’t know what my colleagues do, to be honest. I just saw Lindsey whose office is across the hall and she’s like, ‘Oh you cut your hair.’ Yeah, like a week and a half ago. We just don’t see each other. We only see each other in meetings.” Even though their offices

were situated across the hall from one another, because Amanda tried to curtail her time with others, she did not see Lindsay for an entire week. While she did not know about Lindsay's haircut, more broadly, she also did not know much about Lindsay's—or other colleagues'—personal lives and professional struggles.

These workers did not regularly exchange advice, help, information, or resources with colleagues besides what was required by formal work activities. Stephanie described "being really scared" about not making tenure. In fact, it was only in her fourth year as a professor that she realized that teaching and service were not really being weighed equally with research—despite this formally being the case in her department. Stephanie was surprised, concerned, and frustrated. By limiting time with coworkers, she also missed out on informal advice regarding tenure. Similarly, when Amber's unit was hired for a new project, she was the third person to be contacted to fill a role on it, despite the fact that her skillset matched the work perfectly. Dustin—who had contracted in the project—had first asked two of his work-friends for help, before coming to her. Dustin explained that he had thought of his work-friends first, before realizing Amber might be a fit for the project.

Ultimately, these workers felt like outsiders, viewing colleagues as coworkers but not friends. Tara explained, "There is no one at work that I feel close or connected to. I just have like no really warm experiences with anyone at work." While she could easily list off coworkers she communicated on a daily basis with for work matters, these regular work-focused conversations and email messages had not evolved into any sense of closeness or belonging. Brent similarly explained that he had no work friends, although this had not always been the case. He explained that before his children, he had made several close friends at work. But after having his daughter and son, he had not formed any new connections. And as his coworker-friends left his unit to

transfer or quitting STEMO, he felt increasingly alone: “I don’t really have [work-]friends that I hang out with anymore.” He now worked with colleagues, not friends.

However, while these workers experienced disconnectedness at work, they had a strong sense of connectedness at home, which was supported and nurtured by their preserving of proper time for family matters. Tara, while not close to anyone at work, had a wonderful relationship with her two teenaged children. Her daughter in particular confided in her difficulties about school and making friends, which Tara tried to empathize with and provide suggestions. For instance, when her daughter was having a hard time connecting to others in her class at her new school, Tara suggested she hang out with a new group of friends. Similarly, Julie did not have close friends at work: “I don’t really even know what my colleagues are up to.” While she was not close with anyone at work, she had a wonderful relationship with her two sons, spending hours with them each evening. While connectedness at work was sacrificed, these workers experienced and appreciated a rich connectedness with their families.

GENDERED EXPERIENCES OF TIME AND CONNECTEDNESSs

Women were less likely to experience a strong sense of connectedness compared to men. This seemed to be for two reasons. First, women with children were more likely than men with children to have regular childcare responsibilities and, as a result, were more likely to experience their proper time as anticipated when at work. Second, women were less likely to have men temporally coordinate with them, that is, to be ignored.

Involvement in Childcare

Most mothers (78%) experienced time as anticipated when at work and carefully separated their proper time from their coworkers' time. This reflected the fact that women with children were more likely than men with children to regularly perform childcare (Table 5). This included getting children ready for the day; bringing children to and from school, daycare, or activities; helping children with schoolwork; and preparing them for bedtime. April described her daily management of her one-year-old and four-year-old sons' schedules. First, she would wake them up. Then she frantically ran between making breakfast and helping her children get dressed. She put the kids in the car, dropping her eldest off at preschool, and then her youngest off at her mother's house. She then arrived at work by 8:30am ideally. She would leave by 4pm in order to avoid traffic, pick the kids up, make dinner, play with them, and get them to sleep by 8pm. About once every week or two, she left work early to pick up a sick kid or take a child to a medical appointment.

---Insert Table 5 here---

While these working mothers did outsource their children's 9-to-5 care—often by relying on a mix of daycare, school, extended family members, and nannies—they still remained in charge of coordinating their kids' day-to-day schedules. Amber's daughter Sophia was 20 months old. As Amber was finishing her maternity leave, she spent hours researching, interviewing, and selecting a nanny who now watched Sophia Tuesday through Thursday. On Mondays, Amber's mom watched Sophia, and on Fridays, Amber's mother-in-law watched her. During each weekday, Amber made sure Sophia was "handed off" to the relevant caregiver. And when her nanny arrived late—which was more frequently than Amber liked—Amber arrived at work around 8:30am instead of 8am, meaning she had less time to work. The nanny's regular

lateness—combined with the fact that Amber's sister was having a baby soon and would require their mother's help—led Amber to try to transition Sophia to a daycare. She initiated the process of researching, interviewing, and selecting a care provider yet again. Where was Amber's husband in all of this? Typically at work, and providing the occasionally "thumbs up" to her selection of caregiver. Importantly, while childcare responsibilities were a lot of work for women like Amber, it was also an activity they valued. Amber, for instance, described in detail how she loved giving Sophia dinner, offering her a bath, and then reading before bedtime. While this labor, it was labor that women valued.

In contrast, many fathers (58%) experienced proper time in the present, and to synchronize their time with that of colleagues. Men were on average less involved in the day-to-day aspects of their children's care (Table 5), reflecting the fact that many of these men (46%) had wives that either worked part-time or stayed at home. For instance, Jason's wife had become a stay-at home mother following the birth of their third child. And while both Henry and his wife had PhDs, after the birth of their son three years ago his wife had switched to a part-time position that she could perform at home. During the work day she was now either watching their son or working at home while a nanny cared for him.

Notably, there were some fathers (27%) who were regularly involved in their children's day-to-day care. Tyler and his wife Anna split their daughter's care, with Anna dropping their daughter off and Tyler picking her up. When their daughter was sick, the two would call one another to see who had the least important meetings that day—which was sometimes Tyler and sometimes his wife—and that person would drive to the daycare and take their daughter home. Tyler was also involved in the decision to send their daughter to that specific daycare, and regularly cleared out his travel schedule to be with her for important holidays like Halloween.

The fact that fathers and mothers who performed regular childcare experienced time and disconnectedness relatively similarly suggests this part of the gendered experience of disconnectedness reflects gendered norms outside of the workplace, namely, in how men and women divided childcare responsibilities. In the next section, however, we describe how gendered organizational processes shaped employees' experiences with time and connectedness, in ways that hampered women's but not men's workplace connectedness.

Ignored

Women's attempts to synchronize their proper time with others were also more likely to be ignored than men's attempts. This seemed to reflect two things in particular. First, men tended to be less likely to approach women than other men. One salient example of this was the playing of foosball at PRU. Every day, men would invite one another to play foosball. In the over dozens of games we observed, no woman was ever asked to play. This was despite the fact that most of the women sat next to the foosball table and were clearly visible to the male players. Women were also sometimes not invited to their male colleagues' evening social activities. As Diana explained, "The men in this office have poker and sports activities that they do together outside of work." She, and the other women, were rarely invited to these events.

Second, women's attempts to initiate interaction with men were in some cases brushed off. Misty went on walks every lunchtime to get exercise. She had previously tried asking some male colleagues to join her, but they had explained they were too busy with work—despite the fact that, on most days, they would grab lunch at a restaurant with male colleagues. Even though Misty attempted to make inroads with the men in her office, it was difficult for her to forge a connection. Similarly, Sarah noticed that the men in her office often joked with one another, and

she tried to adopt the same jocular approach. However, it did not seem to matter how many jokes she made; her jokes almost always seemed to fall flat with no one laughing. Sarah's attempts to cultivate connection were ultimately rebuffed.

The result of this was that women who tried to synchronize their proper time with coworkers experienced connectedness that was more muted than what many men experienced. Sandra explained that—despite her attempts to organize lunches with others—she felt relatively little connection with her coworkers, who often passed on her lunch invitations. As a result, she felt some disconnectedness: "There is little sense of teamwork or camaraderie [in my department]." Similarly, Cynthia noted, "I have not been well mentored here [at PRU]." When she went up for promotion, her senior male coworker—whom she thought she was close to—did not recommend her, instead endorsing a male colleague.

ALTERNATIVE EXPLANATIONS

In Appendix III, we address several alternative explanations (e.g., regarding gender and role seniority). As we describe in this appendix, we found that these alternatives did not explain our findings.

DISCUSSION

Figure 2 summarize this study's findings while also offering an analytically generalizable model regarding how time shapes connectedness in the workplace. The generalizable components are the theoretical constructs—demarcated with capital letters—as well the processes linking them—demarcated with italics. The other text in the figure displays the study's findings. The model spans four levels of analysis: society, organization, intergroup, and individual.

---Insert Figure 2 here---

The model starts in the bottom left-hand corner. Experiences of proper time in the workplace shape how individuals coordinate time with others. In this study, individuals who experienced proper time as in the present synchronized their time with colleagues, while those who anticipated proper time attempted to separate their time from coworkers' time. These temporal coordinating practices either enabled or constrained connectedness in the workplace. In this study, individuals who synchronized their time with others experienced connectedness, while those who separated their time experienced disconnectedness. Temporal coordinating practices also enabled or constrained connectedness at home. Amongst the workers we studied, those who engaged in separating often preserved proper time for family interactions and had close bonds with their children, while some of those who synchronized spoke of less rich connections to non-work individuals. The relationship between time and connectedness is reciprocal, with workers "investing" time with others either at work or outside of work as they come to experience a sense of connectedness in or outside of the workplace respectfully. In this study, for instance, individuals who enjoyed spending time with their colleagues tried to actively seek out their colleagues.

Proper time is informed by societal-level temporal norms, such as the notion there are 24 hours in a day or that time can be allotted and experienced through particular events (Ancona, Okhuysen, and Perlow, 2001). For instance, in this study, individuals noted that they only had 24 hours in a day to allot between work and non-work activities. These societal-level norms also inform the temporal structure of work, which in turn shapes individuals' temporal coordinating practices. For instance, the professional workers in this study experienced pressure to perform their work quickly. They recognized particular "clock" times as work deadlines (e.g., customer wants a report at Monday at 5pm, drug study results are expected in two months, tenure package

is due in three years), and when individuals separated they did so with an eye of meeting these deadlines while also preserving time with family.

Gender is central to the relationship between time and connectedness. Gendered norms at the societal level shape norms of interaction within organization in gendered ways. For instance, across the organizations in this study, men tended to gravitate to other men while often failing to proactively interact with women. These gendered norms of interaction affect employees' experiences of connectedness by influencing how temporal coordinating practices are realized. In this study, women experienced a more muted sense of connectedness even when they tried to interact with others because men did not recognize or reciprocate their attempts at interaction. Gender norms around work and home also mean women are pushed to focus on the home sphere and men the work sphere. As shown in this study, this means that women may have difficulty nurturing connectedness at work. This reinforces these societal-level gendered norms that associate women with family and caring. However, while gender is being continually "done" it is also being "undone" (West and Zimmerman, 1987; Ely and Meyerson, 2010). For instance, in this study men in more egalitarian relationships prioritized the home sphere while women without children prioritized on the work sphere, contrary to widespread gender norms.

Contribution to Connectedness at Work

We contribute to the literature on connectedness in four ways. First, we show how time informs connectedness. While previous literature has focused on various individual characteristics and situational conditions, here we turn the lens to time, an important and central factor in everyday human life. We show the particular ways in which time—and specifically individuals' varied experiences of proper time—may inform connectedness in the workplace. We also show how

time bridges the gap between individual and situational conditions, as shown in Figure 1. Time is both individually experienced while also informed by broader societal, organizational, and intergroup-level experiences.

Second, we emphasize how connectedness at work is related to connectedness outside of work, and in particular, in the home and amongst family members. While the previous literature on workplace connectedness has—understandably—focused on the workplace, we show how connectedness to home is intertwined with connectedness to work. In particular, individuals' engagement in one sphere of "connectedness" shapes their attention to and engagement in the other sphere.

Third, we show how individuals' temporal coordinating practices serve as the connection between time and connectedness. Previous literature—unfocused on time—had not identified these practices. We show that it is through these practices that individuals may either connect with or avoid others. Temporal coordinating practices also add to and further develop the literature's understanding of how individuals manage and prioritize activities (Dumas and Perry-Smith, 2018; Byun and Kirsch, 2021). They also can be viewed as a particular form of boundary work, and therefore enrich our understanding of this concept as well (Kreiner, Hollensbe, and Sheep, 2009; Trefalt, 2013).

Finally, we specify how gender relates to connectedness. While previous literature has emphasized women's isolation relative to men in professional settings (e.g., Turco, 2010) we highlight two particular mechanisms—gendered norms of interaction and gendered norms of work and home—that support women's disconnectedness. These two mechanisms "act" separately to reinforce women's relative isolation. While these were theorized separately in past literature, here we connect them. We also show the ways in which gender is being "undone" in

contemporary workplaces, in relation to the cultivation of connectedness. Men who engage in more egalitarian relationships also suffer from social isolation if they value the home sphere, and women who put the work sphere first may be less isolated, although still suffer from some disconnection in the workplace.

Contribution to Time and Organizations

We contribute to the literature on time and organizations in four ways. First, we show how overworked professionals navigate the tensions between work demands and finding connectedness in their day-to-day work lives. Extant literature on time often highlights the sheer number of hours these workers put in, the inescapability of this experience, and the resulting (e.g., Michel, 2011; Perlow, 2012; Blagoev and Schreyögg, 2019). In contrast, here we show how individuals counter and resist these temporal demands through small daily practices. For some, this entails resisting activities viewed as peripheral to core work tasks to "free up" time outside of the workplace (see also Moen et al., 2013). For others, this entails infusing meaning and value into everyday interactions with coworkers. It is through these small, everyday practices that individuals carve out and preserve meaning and enjoyment in their lives in the face of constant work demands.

Second, we offer an alternative framework for research on workers' experiences of time. In particular, extant literature tends to examine these experiences in terms of work versus home time. We add to this view of time by delineating the concept of proper time, and showing how this sense of time can be understood as a form of temporality that cuts across both work and home. In thinking about time, scholars should not only draw a distinction between home time and work time, but also consider the difference between time individuals feel reflects their own

interests and self-expression—that is, proper time—versus time structured by organizational demands.

Third, we show how time and gender may be experienced by those "off the diagonal." In particular, while there are many studies of professionals detailing the temporal experiences of women with extensive childcare responsibilities and/or men focused primarily on work (Reid, 2015; Beckman and Mazmanian, 2020), comparatively little research examines the experiences of women without childcare responsibilities or men focused on family experience. In this study, by examining these cases, we document the experiences of these groups of individuals. We show how men who regularly perform childcare may also experience relative isolation in the workplace. We also demonstrate how women without these same responsibilities may be able to develop a sense of connectedness, albeit one that is more limited than their male colleagues who also lack childcare responsibilities.

Finally, we add to studies of how workers coordinate time at work. Research on temporal coordination has traditionally focused on how workers coordinate time collectively to complete work tasks (Geiger, Danner-Schröder, and Kremse, 2020; Obort and Barrett, 2021). In contrast, in this study, we show that preceding workers collective coordination is the ways in which particular individuals think about and coordinate their time in relation to coworkers. We also show how work and home temporalities are intertwined in how workers think about coordinating with these coworkers, and by implication, how time is collectively coordinated in the completion of work tasks.

Boundary Conditions and Future Directions

While this is a study of three organizational contexts, providing it with broader generalizability than many qualitative studies of one organization, there remain boundary conditions on these findings. First, this is a study of women in male-dominated STEM professions. While most professions remain male-dominated (e.g., accounting, law) in occupations with more women these dynamics are likely to shift. In particular, while we do not expect societal-level norms around women performing more caregiving than men to change drastically across occupations, it does seem likely that in female-dominated professions, women will be less likely to be ignored as described in this study. Therefore, women may feel more connection in settings that are not male-dominated.

The organizations studied here were comprised primarily of individuals who identified as white, and correspondingly most individuals in our study identified as white. However, in workplaces with more diverse demographics, race or other demographic characteristics will likely emerge more clearly as shaping individuals' experiences of time.

Practical Implications

This paper has two important practical implications for thinking about the integration of women in male-dominated professional setting. In particular, our research suggests that women with different family structures may require varying organizational interventions to nurture connectedness. For women without children, organizations may need to focus on making sure men include women in everyday social interactions, for instance, by having reoccurring gender-diverse mentoring and networking sessions. In contrast, women with family commitments may also benefit from interventions that take less time, such as lunchtime mentoring events with

preassigned others, so that they can cultivate a feeling of connectedness without spending time in activities that they may view as unnecessary to the completion of work.

This study also has implications for understanding the relationship between diversity and innovation. While some research suggests diversity can improve innovation (Loyd et al., 2012; Perry-Smith and Shalley, 2014), this study suggests that managers and organizational leaders need to pay attention to the constraints different demographic groups face when interacting in the workplace. If individuals' interactions are not reciprocated by others, then it might be difficult for innovation to flourish. Managers and leaders should try to improve individuals' ability to interact with coworkers, for instance, through the networking event suggestions provided above. Notably, against the backdrop of the COVID-19 pandemic, these two sets of practical implications are increasingly important as organizational leaders think about what the "new normal" will look like after the pandemic.

CONCLUSION

While scholars have described various conditions supporting individuals' connectedness in the workplace, unexamined is the role of time. But time is always essential, including in professional contexts in which employees experience increasing temporal pressures. We show how proper time may either support or constrain the development of workplace connectedness, and how these experiences are ultimately gendered.

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Table 1. Summary of Research Settings and Data Collection Methods

	Major University (MU)	Pharmaceutical Research Unit (PRU)	STEM Organization (STEMO)
Organization	STEM departments of research university	Division of pharmaceutical company	STEM research consultancy
Workers Studied	Assistant Professors (19)	Scientists (22)	Scientists and Engineers (31)
% of Relevant Population Sampled	56%	96%	13%
% Female in Organization	25%	20%	30%
% Female in Sample	58%	36%	36%
Observation of:			
Individual Daily Work Routines	Extensive	Extensive	Extensive
Interactions in Common Space	Limited	Extensive	Intermediate
Social Events	Limited	Extensive	Intermediate
Work Group Meetings	Limited	Extensive	Extensive
Informal Conversations	Limited	Extensive	Extensive
Interviews	All participants	All participants	All participants
Time Diaries	yes	no	no

Table 2. Experiences of Proper Time

Present	Anticipated
Interpretation of how proper time relates to organization: Understanding of how proper time relates to experiences and time spent within organization	
Proper time often used for enjoyable and meaningful activities within the organization and therefore experienced in the present during the workday. Example 1: Jeremiah devoted time to running a community of practice in his office focused on artificial intelligence. The group met once a week at lunch. He loved it, explaining, "I'm always trying to bring more technology into what I am doing…. I give talks, and there is always follow-up after meetings." He was also in a community of practice focused on block chain: "I'm collaborating there as well." He added, "I'm always doing work like that, it's my hobby." Time was spent in commune with coworkers during the workday Example 2: The foosball table at PRU provided many workers with a fun and enjoyable daily activity. It was a focal point of social activity, with two to three games being played each day, typically around lunchtime. Four workers would play—two per team—and a crowd of three or four would typically watch. If more than four people wanted to play, there would be an informal three-team tournament. Workers like Adam jovially joined in with this "play" activity during work, which—as he described—was a "fun" way to take a break from work.	Majority of proper time to be used for activities external to organization, and therefore anticipated throughout the workday. Example 1: Amanda explained, "I have a lot of time with my family. So whenever my kids are off school, we go on vacations a lot. I hardly ever work on weekends… So in that sense I feel that I do have a lot of non-work time, it's just time with my children." Time that was not for work activities was devoted to her daughter and two sons. Example 2: Craig tried to finish his work by 5:30pm each day so he could be home to cook dinner with his 10-year-old daughter and 13-year-old son. He explained, "My son is 13 now and he can help. We love doing things like this together." He also had started to each his daughter how to paint, something his own father had taught him. Outside of these day-to-day family activities and the occasional family ski vacation, his time was spent 9-to-5 at the office, focused on quickly and efficiently completing work tasks.
Supports of proper time at work: What supports proper time—either experienced in the present or anticipated—in the workplace	
Availability of enjoyable and meaningful activities. Example 1: Melissa explained, "I never work at home for a full day. I love the social interaction at PRU." She added, "The people at PRU are at the top of their field. I love the chance to work with experts." Her workplace was filled with individuals she liked passing time with. In contrast, she explained that she had dreaded going to work at the previous pharmaceutical company she had worked at, as people were so focused on their work there were no opportunities to chat with others. Example 2: Aaron was grateful to have the opportunity to plan his department's seminars, as he saw them as a way to get to engage more with know his colleagues. As he explained, "It's a good way to get to know hot research topics and to link up with our faculty. I think of the seminars—which happen once a week—as a big congregation… It's a great idea."	Clear time structure and management that protects anticipated proper time. Example 1: Jonathon explained to his PhD student that most people's efficiency dropped off in the afternoon, when they tended to be tired. However, by waking up early—as Jonathon regularly did—one could be more efficient: "Just dedicate the whole morning to [your work] if you need to. Don't say, 'I'm going to just work on it for an hour, and then do some emails.' That does not work well in terms of time management." Doing this, he explained, allowed him to spend time with his sons in the evening. Example 2: Dawn tried to work in uninterrupted chunks of time: "It's really difficult to make progress when you are working in short amounts of time because you just get on a roll and sometimes you need to work at it for a while." She scheduled one day a week to work only on research. However, it was important to also efficiently use small chunks of time, if that was what one had on a given day: "You've got to multitask and use those small chunks of time." This way, she could pickup her sons from daycare by 5pm.

Present	Anticipated
Threats to proper time at work: What threatens to impinge proper time—either experienced in the present or anticipated—in the workplace	
Unenjoyable activities that take time away from more enjoyable activities. Example 1: Rachel explained, "There are three different people in my department who prolong meetings... They'll bring up issues that only involves a few people while everyone is there, or issues which are not of major importance, and could be dealt with by an email circulated later. Maybe they just enjoy sitting around in a room with all of us, I don't know. But when you've already done an hour of business, everyone's like [snaps fingers], got to go. [laughs]." Prolonged meetings were not enjoyable. Example 2: Vince explained that while he liked his work, he found the paperwork entailed in it to be extremely dull. It was his least favorite part of his job: "I like the work I do. I like the work I do a lot. But in the last couple years I've had more frustrations. Sometimes all I'm trying to do is follow rules and cover our backsides [legally]… you end up writing paragraph after paragraph that no one really reads, that doesn't really go anywhere." Filling out forms was boring and unrewarding work.	Activity that is an inefficient use of work time, e.g., an activity that is not primarily work focused. Example 1: James explained, "I don't eat with my colleagues because then it feels like I am not multitasking and I am try to save my non-working time for my family… Eating with colleagues feels less efficient." Time with colleagues took away time from family, and James did not want to do that. However, he was fine with eating with his graduate students, because he could hear about his lab while also eating his lunch. It was multitasking. Example 2: Like Vince, Tara disliked the slow paperwork process required to complete projects. As she explained, "Our whole reporting process is just unhinged…. It's just a big process." She did not want to spend time on this reporting mechanism when it could be spent at home. She noted, "I have a lot going on at home. I've got car repair, dental appointments, bringing my daughter home." Spending hours filling out forms was an inefficient use of time.
Implications for interactions with colleagues: How interactions with colleagues are understood in light of one's experience of proper time	
Interactions with liked colleagues are a valued part of proper time Example 1: Jessica described how she liked to have lunches with her coworkers. These lunches, she noted, were often social although they mixed in discussions about research: "It is usually just a social lunch but we often end up talking about plans and ideas and things like that." Outside of work, she lived alone: "There's no time somebody is expecting anything of me at home. Which is different than if you have a family-type feel. Like I cook, but I don't spend much time cooking." Time was spent often with colleagues at work, over lunch or engaged in other meaningful activities. Example 2: Brandon noted, "I'm engaged with others at work, and not just work-wise. I'm engaged socially… The overall atmosphere of working here is better [with friend colleagues]. I'm not just coming to work, doing my work and leaving. I'm in a community of people."	Interactions with colleagues impede on proper time and should be eschewed Example 1: Stephanie explained, "I usually just buy my lunch and then eat alone in my office. I need to eat the quickest way possible because of the kids." She added, "I need to avoid interruptions. I have to protect my time [for research], and this is linked to my kids. I used to have a lot of time in the evening where I could make up time I did not spend working in the day, like talking to people. But now I have less time in the evening because of the kids. So I need to have long hours during the day where I can do work like editing and writing, and this means I need to avoid colleagues." Example 2: Susan explained that because she needed to pick her son up from after-school childcare every day at 5pm, she often missed social activities at work. For instance, she did not go on her office's curling event or fundraising walk, RSVP'ing "No" to both activities. And she snuck past the Halloween party held in the office lobby from 3 pm to 6 pm in the afternoon. During one 7pm workplace outing, her colleagues noted that Susan was not there. She rarely invited her colleagues to lunch and never asked them to meet up with her in the evenings or weekends.

Table 3. Temporal Coordination Practices

Synchronizing: Proper time coordinated with coworkers' time	Separating: Proper time disassociated from coworkers' time
Sparking: Enthusiastically responding to or initiating spending time with others. Example 1: Mary, immersed in her work, is interrupted when her colleague greets her. She immediately looks up from her laptop and asks about the colleague's biggest project, which Mary is not working on but is interested in learning more about. She eagerly asks four follow-up questions. The two talk for 11 minutes, before Mary needs to leave for a meeting. Mary explains, "I like interacting with people, like talking to [coworker]. It was social, but I also got a lot of information that could help with my future work. I hate email." She loved passing time with colleagues. Example 2: Immediately after project meetings, Adam and three of his colleagues regularly congregated in the office kitchen. There, they often eagerly reviewed the meeting that had just unfolded while sipping on coffee: Did the next steps they agreed upon really make sense? Did this work relate to a recently published paper? Did any of them need help with their part of the project? These conversations sometimes lasted five minutes, and other times lasted half an hour, depending on how much there was to discuss following a given meeting.	**Avoiding:** Turning down colleagues' invitations to spend time together, and not inviting others to spend time with oneself. Example 1: Jonathan hardly ever accepted his colleagues' invitations to lunch or invited them out. As he explained: "I almost always work through lunch. I very rarely go out with my colleagues for lunch. That's a rare treat." One time he agreed, and his coworker Todd privately expressed surprise: "Wow, that's a first." Such occasions were rare. Example 2: After project meetings, four of Amber's colleagues congregated in the hallway and chatted about their project. However, Amber walked past them, quickly escaping back to her office. While such informal gatherings were common after project meetings, she never initiated them and rarely joined others who were already talking.
Signaling: Indicating availability for passing time with colleagues. Example 1: Natasha explained that her coworker was a "personal friend" with whom she had regular "social" conversations. He was away for a week on vacation. Knowing that he would likely stop by to chat about his vacation—he had taken his girlfriend to meet his family for the first time—she left her office door open while she worked. While she shut her door for one 30-minute phone meeting, she opened it as soon as the meeting ended. The coworker stopped by that afternoon, walking in without knocking on the open door. Her open door signaled her availability to chat. Example 2: Ethan described that he took a break with three of his colleagues each afternoon. There was no set time for these casual encounters. Instead, "when somebody is completely dead" that person would stand up, leave their office, and go get the others. Ethan explained, "I do try to walk around and talk to other people every time I'm doing a work task and I'm like ugh, I don't want to do this." Walking down the hall signaled his—and others'—availability.	**Hiding:** Working in locations where coworkers are less likely to be present. Example 1: Angela often worked with her door closed when she needed to focus. As she explained: "Sometimes it'll be closed door for a week." And if it was a particularly busy week, she'd leave the office altogether. As she explained: "I'll even stay home and I'll just work alone." By isolating herself, she hoped to avoid coworkers and remain focused. Example 2: Russell often worked at home or in a coffee shop to get away from coworkers: "I hate having someone knock on my door when I'm trying to focus… People are always coming to ask me questions. That is why I like going to the coffee shop [laugh]." He noted, "Going to the coffee shop is a strategy." He explained with exuberance how wonderful Dropbox was, because it more easily allowed him to work at home instead of only at the office.

Synchronizing: Proper time coordinated with coworkers' time	Separating: Proper time disassociated from coworkers' time
Shifting: Delaying other activities to make time for enjoyable interactions with colleagues. Example 1: Dwight explained that he often got "distracted" at work because his colleagues stopped by and ask him questions about work or invite him to play foosball. However, he did not try to avoid these interactions, which he enjoyed. For instance, he explained, he did not want to close his office door: "No one visits you if your door is closed. The energy doesn't flow that way." So, his work that did not get finished during the day was instead moved to evenings and weekends. As he explained: "That's how I get my focus time." Work tasks were not performed during regular business hours; they were replaced with time with colleagues. Example 2: Roughly once a week, chemist Richard and his biologist colleague would chat casually about their work projects. This was a weekly highlight for both of them, as they both privately explained that they enjoyed one another's company. Typically, they sat in their office lounge and Richard asked his colleague for input on the biological science underlying the drug he was working on. Then, the colleague asked Richard questions about chemistry. Sometimes they chatted for two hours, but other times they only talked for 15 minutes; the length of time depended on how many questions they had for one another. Importantly, other work was moved to evenings or weekends to make time for these conversations. As Richard noted: "On the weekends when I'm not at work, I actually working." As a result, he spent less time with his wife and teenage daughter.	**Organizing:** Arranging work-focused activities with colleagues in the order, length, and frequency that is most time efficient. Example 1: April was frustrated by the junior personnel on her project asking her questions on an ad-hoc basis; it interrupted her work schedule. So, she arranged for weekly meetings where they asked her all their questions at once. When a more urgent problem came up during the week, though, she emailed her coworkers, and if she did not receive a timely response, she called them: "If I don't get an answer through email, I will call." She wanted to complete work tasks—and by extension, workplace interactions—quickly and efficiently. Example 2: To protect quiet periods of time for research, Julie structured her meetings with her three lab members. She scheduled a weekly meeting with each worker: "If they have interesting data, or they need to discuss something, then I'll have like a half an hour or an hour meeting with them, and I usually do that with each of them once a week." She also had a two-and-a-half group lab meeting each week. Time was allocated to and focused on activities with subordinates in a structured way, rather than allowing her lab members to stop by her office and chat on a whim.
Meandering: Allowing conversations with colleagues to move across and dwell on various topics, therefore expanding in time. Example 1: Jeremiah returned to his office from a meeting. He sat at his desk, and was about to start writing code, when his coworker—who was at the same meeting—entered his office. Holding a textbook, she explained that her husband gave her a new book about Python. She told Jeremiah how she was thinking of taking a class on Python, and Jeremiah joked that Python reminds him of Linux because both have animal mascots. They both noted that coders like Jeremiah can act like they are in a "cult," knowing the mascots for the different coding languages. The two then discussed a shared project, which had issues with its code. They brainstormed about whether they should use different code instead. Then, a second coworker stopped by and said hello, asking whether either of them biked in on the wintry day. They both say no, and she	**Focusing:** Directing colleagues' attention to the task-at-hand to preserve time. Example 1: Heather had a long list of tasks that she wanted to complete within the two-and-a-half hours before she left work for the day. She sat down at her desk, and worked solely on the listed tasks. As she worked, three coworkers stop by to ask her questions related to her task list. For each colleague, she provided the relevant information—typically in a curt sentence or two—and then returned to typing on her laptop, rarely looking up. She did not ask her coworkers how they were, tell a joke, or otherwise engage in informal conversation. Her return to typing signaled that the conversation was done, and the coworkers all immediately left.

quickly leaves. Jeremiah and the original colleague then chatted about whether they could find another employee to join their project. They discussed which of their colleagues were good workers, and which are worse at their work. Nineteen minutes after she arrived, the coworker leaves, having discussed a vast array of topics with Jeremiah across that time. Example 2: At 2:22pm Wendy and her coworker started chatting casually. The coworker stated she might leave work early today, and Wendy said she might do the same as it had been a long day. A third colleague then stopped by and the three started talking about how much the two colleagues could charge for some project work they were doing—Wendy offered some advice based on her own experience. Then they shifted to talking about what they would do on the upcoming Monday holiday. The conversation ended at 2:31pm. As Wendy explained about her colleagues: "We don't work on the same projects, but we will chat throughout the day." She added, "It will just be like, 'Oh by the way, guess what happened last night.'" The conversations were often casual, but then would sometimes touch on work-related topics or advice, as the discussion unfolded over time	Example 2: Tina needed a security code to get into her new laboratory, which previously belonged to her coworker. Despite having offices on the same floor, she emailed the coworker, asking for the code: "Hi [colleague], I have to show [other colleague] around my lab this morning to give him an idea of what needs to be tossed in the dumpster. [The administrative assistant] said that my key should work but it didn't last time. Could you give me the code when you can?" Shortly after, the colleague replied with the code: "3498." Tina in turn replied, "Thanks!" What could have turned into a potentially longer conversation remained an exchange focused on the task-at-hand.

Table 4. Experiences of Workplace Connectedness

Workplace Connectedness	Workplace Disconnectedness
Trust: Sensitivity of information exchanged	
Detailed sharing of personal information and office politics. Example 1: In the kitchen, Jason whispered to Darrell that he heard their coworker quit over email, and that he could not believe someone would do that—it was clearly unprofessional behavior. Darrell agreed with a nod, having now learned more about their coworker's sudden departure. On other days, the two told each other about how "stupid" and "annoying" a particular client was, complaining together about the difficulties of managing this customer. Jason and Darrell regularly discussed such sensitive matters together. Example 2: Randy told his colleague about the details of his messy divorce: "I went through a divorce. I told him about the negotiations and discussion with the lawyers as they were happening." Over several months, he updated his friend on how difficult the situation was for him, particularly regarding custody over his son. It was a protracted "battle," but Randy was glad to have a friend to confide in.	"The facts," with generic banter. Example 1: Throughout the day, Craig talked to colleagues about their project team's next steps. The most social his interactions became were when he asked "Hi, how are you?" before initiating work-related conversations with coworkers. His colleague Jeremiah viewed him as quite abrupt, and explained that even though they had worked together for over two years on a handful of different projects, they had not grown close. Example 2: Tyler explained that he talked to his colleagues about "work-related things." He added, "Sometimes family-related things come up, but these are not the people I would think of opening up to and discussing family matters or family concerns with." He did not see himself as close to his coworkers, and therefore did not see any reason to share details regarding his personal life.
Knowledge: How well colleagues are known and one is known to colleagues	
Detailed knowledge of colleagues' professional and personal lives, and colleagues know one both professionally and personally. Example 1: Justin went out for lunch one or twice each with a particular colleague-friend. During these lunches, they discussed their fears and hopes about tenure, as well as their strategies for getting tenure and interacting with their department chair. They would also talk about their personal lives occasionally, with Justin chatting about his wife's job or his after-work hobbies. Example 2: Henry described the educational background and career history of each of his coworkers, noting where each had completed their PhD, and if applicable, their postdoctoral training. He noted—with a laugh—that Dwight had in fact never received a PhD, which was rare for people in their field. This demonstrated Dwight's exceptional skills, Henry noted.	Do not know details of colleagues' professional or personal lives, and colleagues do not know details of one's professional or personal lives. Example 1: Angela—who was in the same department as Justin—did not know whether her colleagues were as worried as she was about making tenure. Although she occasionally heard them mention feeling stressed, she wondered, "Is that really what they are saying behind closed doors?" She did not know, because she did not join them in their offices or invite them to her own office for more casual conversation. Similarly, her colleagues—including Justin—noted that they did not know much about Angela. Example 2: Heather was surprised to hear in a meeting that Dwight had never received his PhD, although they had worked together for three years. She let out a small gasp when she learned; everyone else in his position had a PhD, and she had assumed he had one too. In response to her surprise, Dwight smiled sheepishly.

Workplace Connectedness	Workplace Disconnectedness
Exchange: Advice, help, information, and resources given and received with colleagues outside of formal work activities	
Regularly exchange advice, help, information, and resources with colleagues outside of formal collaborative work activities Example 1: Jessica explained that she had colleagues she would ask for help as she tried to navigate her way to tenure. For instance, she sometimes asked more senior coworkers if it was appropriate to miss particular meetings: "Hey, what's the culture on this? Can I miss this meeting or not?" These questions, she noted, were not formal and work-focused: "I ask them questions that I would consider less professional." Example 2: Anthony was competing against a colleague for a promotion. Barry—who was senior in Anthony's department and helping select who filled the role—strongly recommended Anthony over the competing candidate. Anthony received the job a short time later, and he thanked Barry for his help and support.	Do not regularly exchange advice, help, information, and resources with colleagues besides on formal collaborative work activities Example 1: As she attempted to get tenure, Dawn did not get much help or advice from colleagues: "I could use role models just to help a bit. It's really difficult… It would be nice to have an informal support system." She felt that she did not have close relationships with coworkers that she could rely on for help and advice as she tried to navigate the path to tenure. Example 2: Brent described difficulty finding project work that matched his expertise. But he felt awkward asking his colleagues—whom he did not know well—for help: "I don't want to be in that position." So, he kept working on projects in which he had less interest because he could not figure out how to switch to a different line of work.
Closeness: Sense of closeness with others	
View many colleagues as close personal friends. Example 1: Derek described being close friends with two-thirds of his department. He noted, "We have a lot in common." He described how he and had overlapping hobbies with these colleague-friends, and how they discussed these interests often when he visited coworkers' offices. Example 2: Tanya explained, "I have a close group of friends in my unit. I try to maintain my friendships and relationships with them." These close friendships, which had begun years before, she now tried to nurture. For instance, when she saw news articles or even recipes she thought her work-friends would like, she would email them to her coworkers or call them to chat about what she had found.	View many colleagues as coworkers but not friends. Example 1: When asked if she had any friends at work, Amanda laughed: "Is there anyone at work I would consider a friend?" She added, "None of my colleagues at work are after-work friends." While they were colleagues, she rarely ate lunch with them in the office, and never had them over to her home on weekends or went out with them in the evenings. The people she still considered friends were her pals from childhood, rather than anyone she had met at work. Example 2: When asked if he had any friends at work, Shane responded no. While he noted there were a few people he was polite and "friendly" with in his unit, he noted, "I have never really met up with anyone outside of work." Coworkers were colleagues, but not personal friends.

Table 5. Gender, Parental Status, and Childcare Responsibilities

	No Children and No Childcare Responsibilities	PARENT		
		Limited Childcare Responsibilities	Intermediate Childcare Responsibilities	Regular Childcare Responsibilities
Men	16	14	5	7
Women	13	0	3	15
Total	28	14	8	22

Note: For men, intermediate levels of childcare responsibilities took place when the other parent did most of the childcare and the worker helped intermittently. For women, intermediate parenting took place if children were of middle or high school age and thus needed less care.

Figure 1. Two Experiences of Workplace Connectedness

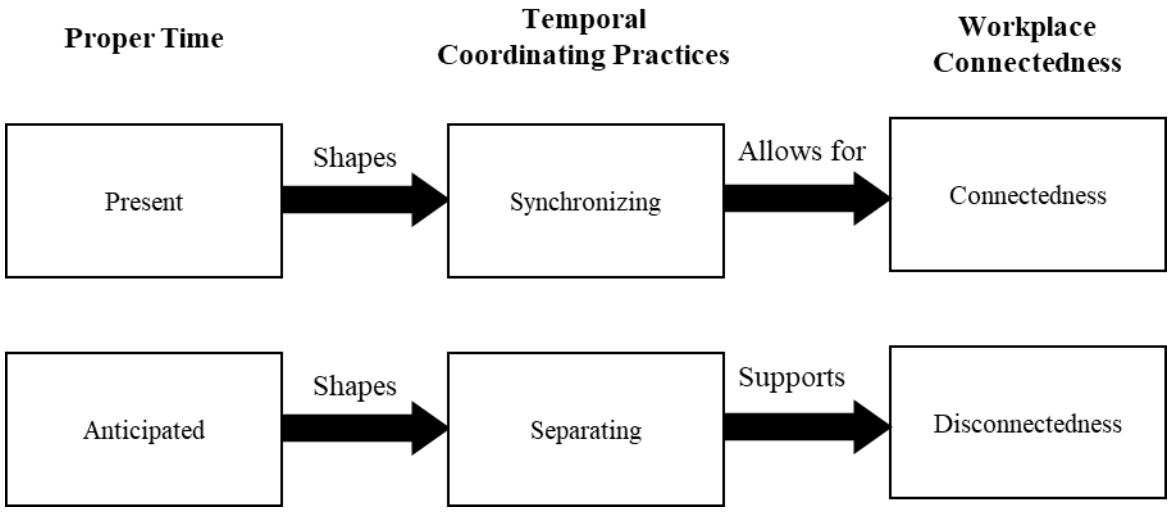
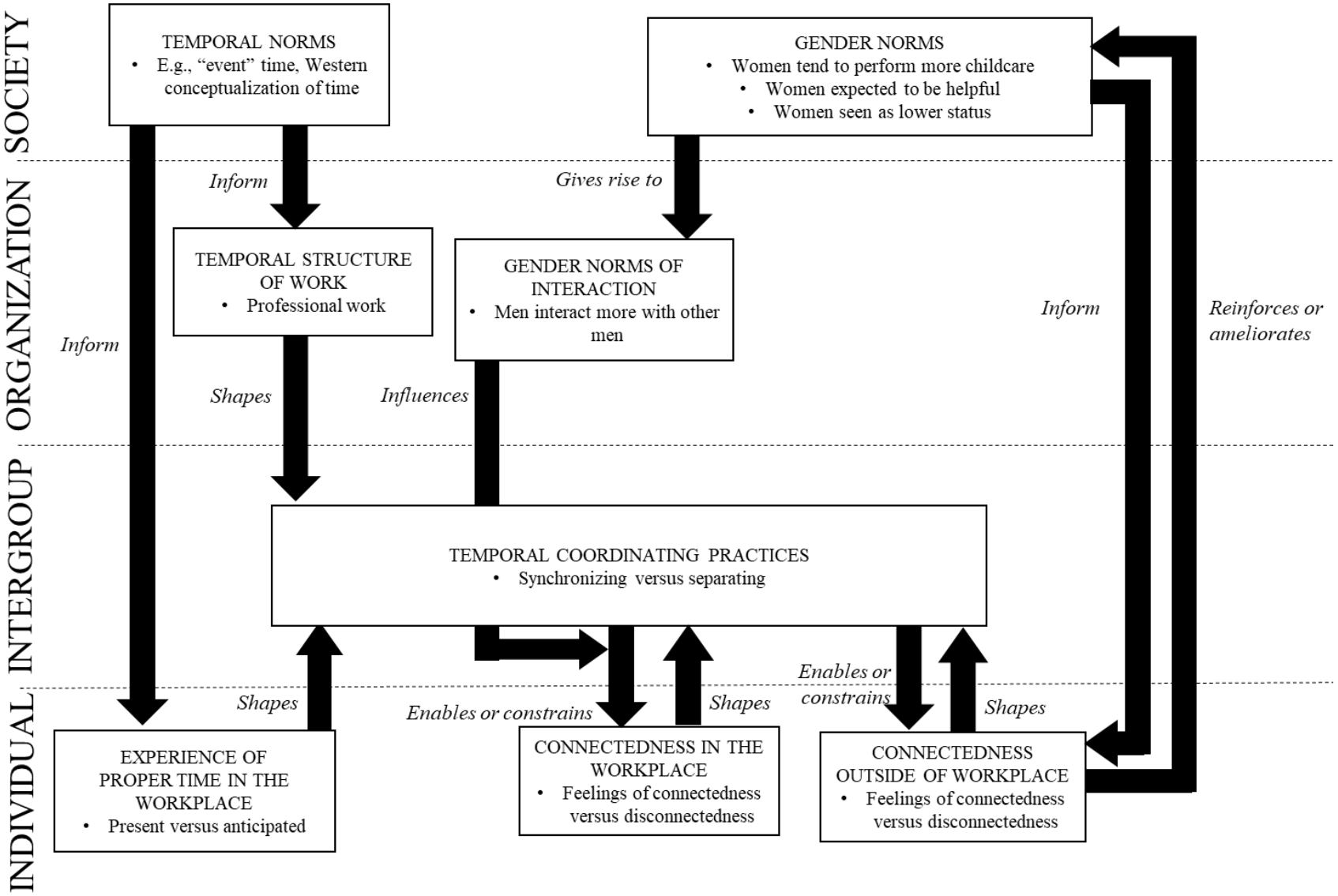


Figure 2. Model of How Time Shapes Connectedness in the Workplace



Appendix I: Data Collection Details

In this appendix, we provide details on our data collection.

Details on Broader Studies

As described in the body of the text, data from this study comes from three separate individual settings. Here we provide some additional details on the PRU and STEMO portions of the study, as they were part of broader research project at each respective site.

PRU Project. The first author gained access to PRU for her master's thesis. Several employees had attended practitioner classes at her graduate institution, and she asked them if she could study their organization for her thesis. They said yes, explaining that they liked the idea of having an ethnographer study their organization (it was "cool"), and as former graduate students themselves, they also liked the idea of helping a graduate student. The PRU study was framed very broadly as examining scientists' day-to-day approaches to work, as the first author did not have a particular topic in mind for her thesis. She collected data in this project through interviews and observations, as well as archival data (e.g., organizational charts) and emails. Because the project unfolded at the same time as we were analyzing data from the MU portion of the study and realizing our sample size was too small, we decided to have the first author also ask workers interview questions similar to those we had asked at MU (see interview protocol below). And because the first author was already aware from the MU study that time and interactions were central to our broader study, she also paid particular attention to these phenomena as she observed workers.

STEMO Project. After finishing the PRU study, the first author then began another project at STEMO for her doctoral dissertation. This project was also framed broadly on work, wellbeing, and effectiveness of STEMO employees. While the first author knew she wanted to include some focus on time in this broader project, she also was open to finding other phenomena emerging as theoretically interesting. Throughout the study, she collected data through interviews and observations, as well as through an organization-wide survey and archival sources (e.g., organizational charts). Because we were still analyzing data from MU and PRU at this point, and the sorts of questions and observations entailed in our interview protocol were within the broader breadth of the STEMO project, the first author continued to collect data for our study at STEMO. As mentioned above, some of the data from this broader project were collected through a survey (which was not included in this data analysis as the results were largely quantitative and not focused on time and connectedness), however we do not think the fact that the first author also performed a survey impacted the interview and observation data in any meaningful way.

Interview Protocol

Here we include the common interview questions that we asked across the three sites that were most relevant to the study. These were semi-structured interviews; questions were not always asked in the precise order listed, and we also asked detailed follow-up questions.

Job Overview: General information regarding job, as well as some details on who participants interact with and sense of connectedness.

1. How long have you worked at [organization]? How did you come to work at [organization]?
2. What is your official job title? What are your work responsibilities?
3. What do you like about your job? What do you like less about your job?
4. Who do you communicate with regularly to perform your job?

Time Use: Questions focused on how time is used, and how interactions are understood in relation to time.

5. What does a typical work day look like for you? What did your work day look like yesterday?
6. How many hours did you work yesterday? How many hours do you typically work each weekday?
7. Do you work on the weekend? (If answer is yes:) How many hours? Do you perform different sorts of tasks on the weekend?
8. If participant filled out a time diary, go through time diary with them and ask questions about it.
9. If participant was shadowed, ask about how their day compared to a typical day, explanations about specific interactions that were unclear to the researcher, and interpretations of which interactions were important and central to their work.

Family: Questions on partner/spouse, children, and division of household labor.

10. Do you have a partner/spouse? (If answer is yes:) What does your partner/spouse do for work? Does your partner/spouse have more or less time than you? Does your partner/spouse have more or less flexibility in their schedule compared to you?
11. Do you have any children? (If answer is yes:) How old are your children? Who cares for your children during the workday? How do you and your spouse divide and coordinate childcare responsibilities? What does your children's day-to-day schedule like?
12. Do you regularly perform any care for an older adult? (If answer is yes:) How often do you perform this care? What do you do exactly? Does anyone help you with this care?

Connectedness: Employees experiences of connectedness in the workplace.

13. Do you have anyone at work that you interact with more socially or casually? (If answer is yes:) Who are they? How did you meet? What do you do together? Is this during or after work hours? (If answer is no:) How do you feel about that? Was it always this way?
14. Do you like working at [organization]? (If answer is yes:) What do you like about it? (If answer is no:) What do you dislike about it? [Probe for experiences of belonging, connection, and workplace relationships]

Organization: How time use relates to organization.

15. Has [organization] helped at all with your family responsibilities? (If answer is yes:) How?

16. Has [organization] helped you with managing and balancing your time at all? (If answer is yes:) How?

Demographics

17. What race or ethnicity do you identify as?
18. How old are you?
19. What gender do you identify as?
20. Who do you live with (e.g., roommates? children? partner/spouse?)

Closing

21. Is there anything I did not ask that you think would be important for me to know?
22. I don't have any more questions for you, but is there anything else you would like to add?

Time Diary Instruction Details. Respondents to the time diary portion of the study were asked to record their use of time every 30 minutes from when they woke up until they went to bed over the course of two non-consecutive weekdays within a two-week period. They were asked to record their day as it progressed, i.e., to write down time use every 30 minutes. Participants were provided with two options for recording their day: (1) a time scheduling app called "Schedule Planner" that could be used on a phone or tablet that was compatible with the Google Play or the Apple Store, (2) a Word document on their computer. Most respondents opted for the Word document. We had respondents email their time diaries to us.

Appendix II: Additional Data Analyses

In this appendix, we provide details on our data analysis.

Other Variables

There were several other employee and organizational-level characteristics that we considered through our data analysis, but found that they did not play a central role in explaining our findings. We detail those in this section. In the "exceptions" section we detail other variables that did seem to explain some variance in employees' experiences, but only affected a few individuals and were not central to the two paths we highlight in the findings.

Age. Those who were older tended to be at their organization longer and—likely as a result of attrition—were more connected than those who were younger. However, age alone could not explain connectedness, as those who were older but engaged in separating practices generally felt disconnectedness. Therefore, because age did not play a central role, we did not detail it in our main findings section.

Role Seniority. Similar to age, those who were in more senior positions tended to be at their organization longer and—likely as a result of attrition—were more connected than those who were more junior, all things being equal. However, seniority alone could not explain connectedness, as those who were senior but engaged in separating practices generally felt disconnectedness. Therefore, because role seniority did not play a central role, we did not detail it in our main findings section. There were three cases where a related variable—tenure in relation to life and work changes—did seem to matter, and we address these in the exceptions section below.

Jobs. The workers at PRU and STEMO performed similar team-based project development work. The workers at MU were professors, and took on more of a managerial role in so far as they oversaw graduate students. They also had teaching responsibilities. These differences did not seem to affect the principle relationships we highlight in this paper: how experiences of proper time shape connectedness. However, they did shape what particular substantiations of this experience looked like (e.g., what was considered an essential task by a worker anticipating proper time was different at PRU, STEMO, and MU).

Interdependency of tasks did seem to matter in so far as it informed what exactly workers could "separate." Workers with significantly more interdependent tasks had a slightly greater sense of connectedness than those without, seemingly reflecting their greater knowledge of colleagues from pre-meeting banter. However, it did not result in them ultimately feeling connected in the workplace, and they remained categorized as experiencing "disconnectedness" in our analysis. Besides interdependce, we otherwise did not find other key characteristics about jobs that seemed to explain differences in temporal experiences and connectedness.

Organization. While MU, PRU, and STEMO varied as workplaces, overall there were no workplace-specific characteristics that emerged as central to experiencing variation in individual temporalities and their connection to connectedness, as focused on in this paper. The exception to this was that PRU—as the most male-dominated organization—tended to have women employees who had more difficulties synchronizing their interactions with others.

Managers. Overall there were no manager or leader-specific characteristics that emerged as central to experiencing variation in individuals' proper time and their relation to connectedness, as focused on in this paper.

Hybrid Experiences

Five workers (Chad, Cory, Elizabeth, Patrick, and Sonya) had a hybrid experience to time, and correspondingly, a hybrid approach to temporal coordination, and feelings of somewhat connectedness to the workplace. All of these workers had intermediate family demands, and so seemed to experience a more mixed sense of focus on home and work. For instance, on some days they would anticipate their proper time, but on other days they would experience in the present.

Exceptions

While most individuals in our paper experienced one of the two paths outlined in the body of the text—or had a hybrid experience—in this section we describe the five individuals who fell outside of these categories.

Tenure in Relation to Family Changes. Two workers (Kyle and Nicole) experienced a stronger sense of connectedness than one would have predicted by their current experiences of time and temporal coordinating practices. Kyle and Nicole had experienced proper time as in the present over their earlier tenure in their organization (roughly seven years), but after having children had shifted to an experience of proper time as anticipated. Therefore, they had a sense of connectedness to their coworkers, albeit, one that was muted. In contrast, many other parents had their children either before or within a few years of joining the organization, and did not describe prolonged periods of experiencing present proper time. They experienced disconnectedness.

Race. One workers (Keith) viewed proper time as in the present and enacted a synchronizing approach to temporal coordinating, yet struggled to develop connectedness. He was a racial minority, and his experience seemed to reflect the fact that—similar to women—his attempts at cultivating interactions with others were often ignored and others also did not actively seek him out.

"**Work Only" Temporality.** Two individuals (Michelle and Leon) focused only on working long hours. They adopted separating practices and felt disconnected from coworkers. Notably, both were raised and spent a large portion of their lives outside of America, immigrating only as adults. They each attributed their different approach to work as, at least in part, to cultural differences in understandings of work, time, and interactions.

Appendix III: Alternative Explanations

Here we address several potential alternative explanations for parts of our findings. We found that these alternative explanations did not apply to our data.

Child Age and Role Seniority. In the findings section we discuss how those with older children were less likely to experience anticipated proper time than those with younger children. However, an alternative is that these findings are not a result of child age, but rather, role seniority because more senior individuals are likely to be older and have older children. However, in our more detailed data analysis, we found this was not the case for several reasons. First, our study is comprised of relatively autonomous professionals, and the independence each experienced did not vary markedly between those with different seniority levels. Second, we studied relatively junior professionals with older children and relatively senior professionals with younger children, and in examining these two groups we found that it was child age rather than role seniority that was explaining their experiences.

Gender and Role Seniority. In the findings section we discuss how women are more likely to have childcare responsibilities and experience anticipated proper time than men, who tend to have fewer childcare responsibilities. However, an alternative explanation is that these findings are not a result of childcare responsibilities but rather role seniority, with women having more junior jobs and being delegated work rather than delegating it. In our more detailed data analysis, we found this was not the case because women and men in our study held roughly the same rank. This reflected the fact that we sampled MU assistant professors and PRU only had two levels of rank for its scientists, with most scientists in the lower rank. STEMO also had a relatively equal dispersion of women and men across seniority ranks. Further, we performed a targeted analysis and found that women in senior roles with childcare responsibilities tended to experience proper time, and men in junior roles without childcare responsibilities tended to experience anticipated time.

Time Management. Is proper time just time management? Our answer is no. Proper time has to do with conceptions and experiences of time, rather than particular time management strategies or practices. However, when individuals act in relation to their experiences of proper time, they may enact particular time management strategies.

Are the two groups of individuals in the body of the findings experiencing proper time differently, or is one group just more organized and disciplined than the others? The individuals in the present proper time group did organize their time in a less regimented way than those in the anticipated proper time group. However, their lack of regimented time use was not a reflection of particular underlying personality traits (e.g., organized versus disorganized) but rather their ways of thinking about and experiencing time, which then resulted in a particular sequence of actions that others may judge as “organized” or “disorganized.” Further, while those with a present proper time orientation were regimented and organized in other aspects of their work and life (e.g., meeting work deadlines, walking their dog regularly).

Spare Time. Is proper time just spare time? Our answer is no. Spare time is often described as time taken up by leisurely activities or free of work, where work is defined to include employment-related activities as well as housework and family care. The individuals with childcare responsibilities in our study were not trying to anticipate leisure time, but rather, time they could define and control outside of the temporality imposed by the workplace (i.e., proper time).

CONCLUSION TO THE ESSAYS

The case of temporal autonomy poses an empirical and theoretical puzzle for extant theories of professionals' autonomy. In particular, despite professionals (1) having relatively greater control over their work tasks and (2) wanting to control their work time, they nonetheless struggle to control their work time. In this dissertation, I address this puzzle by refining our understanding of why professionals face difficulties expanding their temporal autonomy, and identifying mechanisms and processes that can address these barriers and therefore allow these workers to expand their temporal autonomy. In addition to contributing to our understanding of professionals' autonomy in general and temporal autonomy in particular, this dissertation also has implications for literature on temporality and time in organization, flexible work schedules, the work-life interface, and gender in organizations.