Reordering Motherhood and Employment:
Mobilising 'Mums Everywhere' during Covid-19

Abstract

This paper explores the impact of the 'mobilisation' of employed mothers by the UK government to home-school and care for children while performing paid work at home, in order to limit Covid-19 transmission. Drawing upon actor-network theory (ANT), we extend John Law's (1994) concept 'modes of ordering' (or strategic shifts in response to change when power relations are unequal) to illuminate how employed mothers' networks were reordered.

Through a netnographic qualitative study we observe how they re-ordered personal and local networks to combine homeworking, home-schooling, and childcare. We learn how, when mothers' usual networks broke down, they employed three novel modes of reordering: retentive, retrogressive, and reformative. These modes capture the complex relationships between work and family – an area of concern that has previously received limited attention in relation to actor networks. Our findings reveal the gendered nature of the mandatory imposition of home working during the pandemic. Through developing Law's modes of ordering, we demonstrate the potential of actor-network theory to understand the impact on mothers of home working and highlight important practical contributions for organisations and governments.

INTRODUCTION

"We owe mums everywhere an enormous debt of thanks for doing the enormously difficult job of juggling childcare and work at this difficult time" (Rishi Sunak 26.01.2021)

History demonstrates that pandemics reset the world's economic and social fabric (Schwab and Malleret, 2020). Focusing on employed mothers with dependent children we explore here the impact of Covid-19, and the UK government's strategy to limit the spread of this infection, on the work-family networks of employed mothers.

The extraordinary circumstances of the Covid-19 pandemic required the Government to take rapid action to prevent the spread of the virus, including a government initiative to close schools and nurseries, whereby all but key employees were compelled to become homeworkers. Prior to the pandemic, it had been observed how combining work and family within heterosexual dual-earner couple families placed pressure upon quality of life (du Gay 2008; Berlant 2011). However, media coverage and recent research has reported that employed mothers are disproportionately affected by the pandemic (WEC, 2021), with further research required on how such women manage childcare alongside paid work (Petts *et al*., 2020; Cohen and Hsu, 2020; Dunkley, 2020; Lindblad, 2020; Scott, 2020).

The *British Journal of Management (BJM)* has published a rich array of research on women and employment, including studies on women managers (Mavin *et al*., 2014), modest femininity (Priola and Chaudhry, 2021), and career advancement among British Pakistani women (Arifeen and Gatrell, 2020). Our paper contributes to this body of gender-based research, while also answering BJM's call, in response to the pandemic, regarding the investigation of homeworking (Beech and Ansell, 2020). We do this by exploring homeworking from the

perspective of employed mothers who were compelled to transfer to homeworking during the Covid-19 crisis, while concurrently taking care of children. Thus, our paper explores homeworking from a new perspective.

Prior research on homeworking to date has overwhelmingly focused on associated outcomes of this work arrangement, both positive and negative (e.g., Felstead and Henseke, 2017; Bloom et al, 2015), while examples of research examining the actual process of mobilising homeworking are limited. Where this process has been examined, it has been in the context of "remote working which has been an active choice by employees" (Anderson and Kelliher, 2020, p. 678) and usually part of a carefully planned process (Felstead *et al.*, 2005; Tietze and Nadin, 2011; Richardson and McKenna, 2014). In this vein, Richardson and McKenna (2014) explore how employees reorder their home and work lives as they become flexworkers, working at home and the office. This study focuses upon the contingence of ordering regimes, highlighting how 'when actants…induce new modes of active ordering processes, it seems important for…researchers to enter into and to describe the processes of ordering that are engaged in by those effected' (p. 11). It demonstrates how employees initially experimented with reordering processes, eventually reordering in a way that enabled personal and organisational commitments, and enhanced work-life balance. However, acknowledging Wang *et al's* (2020) assertion that the pandemic requires a different approach to understandings of homeworking, we extend Richardson and McKenna's (2014) findings by exploring a new homeworking social order resulting from the enforced mobilisation by government decree, of homeworking, with a particular focus on employed mothers. This paper seeks to answer the following research question:

How do employed mothers reorder their networks in response to being mobilised to navigate childcare and paid work within home settings?

We answer this question by abductively extending elements of the theoretical concept Actor-network theory (hereafter ANT), which, as Whittler and Spicer (2008, p. 613) state, enables researchers to determine "how relationships can be organized and stabilized to create a durable and robust network". By affording equal status to human and non-human actors (e.g., technology or disease) actor-networks become "a mediated achievement, brought about through forging associations" (Müller 2015, p. 11). It is this mediated agency in which employed mothers are situated that we attempt to reveal. Law and Callon (1992) define two main types of networks: the powerful networks that sit outside a project, providing or removing resources (i.e., Government actor-networks that directed citizen behaviours during the pandemic), and local networks of actors who implement such mandated projects (i.e., those involving employed mothers). Here, we demonstrate ANT's potential to reveal the effects that powerful actors, both human and non-human, have on maternal employment.

In particular, extending the work of John Law (1994, 1992) we make a novel contribution to a central tenet of ANT, that of 'modes of ordering', which are the strategies and processes which form actor-networks that develop in response to complex situations where power relations are unequal. Specifically, we introduce three new re-ordering modes, retentive, retrogressive, and reformative that mothers deployed as they sought to manage their obligations across work and family spheres

The paper is divided into four sections. First, we outline the context of the study and the challenges facing employed mothers mobilised by UK government in the context of the Covid-

19 pandemic. We then present theoretical tenets from ANT, particularly focusing on 'mobilisation' (Callon, 1986) and Law's (1994) 'modes of ordering'. We then detail our qualitative approach, consisting of a netnography, part of which involved conducting in-depth interviews. By following a process of abduction, we next present our findings, revealing the three novel 'modes or ordering' utilized by mothers as they re-ordered their local networks to simultaneously engage in paid employment alongside caring for children at home. In doing so, we highlight the important role played by actors, both human and non-human in the home and family sphere, and the gendered nature and precarity of employed mothers' actor-networks. We conclude by highlighting our key contributions and making suggestions for future research.

RESEARCH CONTEXT: MOBILISING EMPLOYED MOTHERS

As part of the Government actor-network to halt the spread of Covid-19, approximately 5 million employed mothers were mobilised to take the lead in managing, simultaneously: home-schooling, childcare, and paid work within their home (Sunak, 2021). Yet the Government offered limited intervention regarding how employed mothers might in practice revise the local actor-networks which previously supported their working lives. Mothers were expected by the Government to manage two conflicting priorities: halting Covid-19 through schooling children at home; and somehow also satisfying their line managers by continuing to perform to a high standard. According to Shiga (2007, p. 42) mobilization is characterised as "the physical displacement of entities" from one network to another and this aptly describes the situation of employed mothers who found themselves unexpectedly managing paid work and family from within their home settings. The unprecedented impact of Covid-19 on home and family life

precipitated a crisis for employed mothers (Petts *et al*., 2020). More women than men have faced redundancy and employed mothers, with childcare and home-schooling responsibilities, report higher levels of anxiety compared to fathers (Close the Gap and Engender, 2021).

Prior to the onset of the pandemic, employed mothers inhabited a world of competing and contradictory work and maternal ideals, where the 'ideal worker' is unencumbered by caregiving responsibilities, and devoted entirely to organisational ends. Organisational primacy thus takes precedence (Acker, 1990; Dumas and Sanchez-Burks, 2015; Reid, 2015). Simultaneously, ideal mothers must adhere to intensive mothering practices (Ennis 2014), in which 'mothers should be the central caregivers of children and ideal childrearing is time-intensive and emotionally engrossing' (Christopher 2013, p. 189). Concurrently, despite decades of legislation, the 'tilting playing field' of structural inequalities in 'pay, promotions, vertical and horizontal segregation' has obliged mothers in dual-income heterosexual couples to consistently make career sacrifices, prioritising men's careers (Priola and Chaudhry, 2021, p. 306). Fathers, in turn, are discouraged from flexible working, restricting their capacity to share responsibility for childcare and domestic obligations (Gatrell *et al*., 2014). Such attitudes are detrimental to women's career progress (Radcliffe *et al*, 2021) and at odds with decades of organisational and government investment in equal opportunities agendas.

By studying this moment of mobilisation within the context of maternal work-family networks we highlight the gendered effects of physical displacement on maternal employment. We illuminate how the influence of more powerful exogenous actors (here Covid-19 and the Government) impacted employed mothers' local networks in ways that exacerbated inequalities.

THEORETICAL APPROACH: Actor-Network Theory

ANT was developed to explore asymmetrical power relations regarding government policy and change. It has been previously utilised to illuminate the unintended consequences for local actor-networks of high-level government policy (Callon, 1986; Donaldson, Lowe and Ward, 2002). As such ANT is particularly relevant for exploring the situation of employed mothers, who were mobilised without consultation as part of the government actor-network to halt Covid-19. As a social theory ANT assists in exploring "how particular social arrangements are accomplished, and stabilised" (Van der Duim *et al*, 2013, p. 5; see also Law, 1992; Emirbayer, 1997; Bajde, 2013), even once they become habitual and hidden (what is termed 'black boxed', Latour, 1987). ANT allows us to open the "black box" that encloses the networks of care required for employed mothers to maintain their employment (Padavic, Ely and Reid, 2020).

ANT makes no 'distinctions between the social, the natural and the technological', with non-human actors (such as computers or buildings) afforded equal status with human beings (Michael, 1996, p. 30). According to Latour (1987) anything which acts in concert with humans or non-humans may be considered an actor-network including disease (here Covid-19), technologies, families, governments, individuals, and emotions (Alcadipani and Hassard, 2010; Michael, 2017; Sage *et al*, 2020). Thus, ANT allowed us to acknowledge the importance of IT in transporting workplace meetings into mothers' homes through communication software programmes like Zoom, and in offering device-based (iPad; TV) solutions to occupy children when mothers were performing organizational tasks.

The pliant nature of ANT enables flexibility regarding which elements may be employed in any given study (Corrigan and Mills, 2012). Callon (1986, p. 203) in theorizing the inception of an actor-network describes how the first 'step' involves the identification of a problem situation as defined by a lead entity (here, the UK Government). Influential agents (e.g., public health agencies) are engaged to create powerful new actor-networks to solve the problem. Subsequently, less powerful actors (here, employed mothers) are "mobilised" to comply with roles assigned to them by the lead entity (Callon, 1986; 1998; Latour 2007). Written directives (termed 'immutable mobiles') such as news briefings consolidate as *"hard fact"* (Michael 1996, p. 54) the duties assigned to the mobilised group. Mobilisation is significant in our context (Waeraas and Nielsen, 2016) where employed mothers were marshalled to care for and educate children at home during the pandemic. Prior studies on mobilisation have elucidated how actor-networks rally against attempts to redesign business processes (Greener, 2006), how stakeholders are mobilised to accept specific definitions of CSR (Bergström and Diedrich, 2011), and the nature of accounting innovation (Gosselin and Journeault, 2021), but few explore the relationships between work and family.

Here, in examining how mothers responded to mobilisation, and how they experienced the resulting disruption of their local actor-networks that supported their work-family commitments prior to Covid-19, we draw upon Law's (1992; 1994; 2002) notion of 'modes of ordering' (the processes and strategies which tie together actor-networks). In Law's view, identifying modes of ordering can assist in understanding complex situations born of asymmetrical power relations, whereby network priorities are delegated to non-voluntary recruits (here, employed mothers). Law (1994) originally developed four modes of ordering to support

his own research (enterprise/administration/vision/vocation). These have been adopted in subsequent studies (e.g., Rosen, 2002; Oakes, 2011). However, he characterises 'modes of ordering' as a flexible concept and encourages scholars to create new modes suitable for shedding light on their own area of research (Law, 1994).

Scholars have thus created novel 'modes of ordering' which more accurately define their empirical contexts (see Elmholdt et al, 2016; Hummel and van der Duim, 2016; Jørgensen and Schou, 2020; Kalff, 2021; Knox et al, 2015, 2008, 2007 and Richardson and McKenna, 2014). However, while ANT theorists highlight where networks operate across boundaries (Caldwell and Dyer, 2020), prior studies on modes of ordering often focus on networks within organisations. In keeping with Law's (1994) original study focused on the Daresbury Laboratory, other research examines modes of ordering from an organisational perspective including an airport (Knox et al, 2007; 2008; 2015) and a training organization (Hummel and van der Duim, 2016). Modes of ordering to date therefore remain focused on actors in organisational space, with limited consideration of actor-networks within the home and family, despite much research demonstrating multiple ways in which work and family are connected (Greenhaus and Beutell, 1985; Edwards and Rothbard, 2000).

Richardson and McKenna's (2014) study of employees volunteering to become flexworkers is exceptional because it considers actors within the home space. Yet, in this instance, the focus remained on organising in a context in which networks of childcare and domestic support could remain intact. This was reflected in their reordering modes, such as 'customization', demonstrating how 'flexworking' allowed *some* participants to tailor positive outcomes, while

noting that those with greater familial commitments found it harder to navigate the fluctuating work-family dynamics brought about by merging work and home. Richardson and McKenna's study invites further exploration of work-family dynamics, and this is the focus of our study.

During the early stages of the pandemic, with buildings and institutions such as schools and offices closed, employed mothers lost access to their usual networks, this compromised their capacity to separate work and family spheres. Our participants experienced an unplanned, compulsory and full-time mobilisation into a new homeworking social order in which they were expected – by the government and their employers – to re-order their local networks so that they could simultaneously combine homeworking, home-schooling, and childcare. It is this re-ordering process that is the focus of our study.

METHOD

In developing our approach, we were cognisant of Budhwar and Cumming's (2020, p. 442) plea that research methods, 'should use the most up-to-date techniques, considering development in different disciplines'. Alongside the restrictions placed on physical contact during the pandemic, to capture the impact on employed mothers of being mobilised in the fight against Covid-19, we designed a qualitative research study using netnography of which in-depth interviews are an important component. Research data were collected March to July 2020.

Data collection

Lockdown and self-isolation encouraged everyone to communicate more via digital communities (Orton-Johnson, 2021). Particularly for employed mothers, online networks are regarded as a social lifeline enabling them to connect with people experiencing similar life

circumstances (Gatrell, 2011; Lagan *et al*., 2006). Netnographic research was undertaken to obtain naturalistic data through studying social media sites (Kozinets, 2020). To perform a netnography, Kozinets (2020) suggests evaluating sites using criteria including relevance, activity, interactivity, and richness. For our study, we sought well-established sites where substantial numbers of mothers connected (Gatrell, 2011): Mumsnet and Facebook excel in this regard (Gatrell, 2019; Lagan *et al*, 2006; César *et al*, 2018; Archer and Kao, 2018). Five search terms were used to find data: 'homeworking', 'working during lockdown', 'lockdown mums', 'home-schooling' and 'working from home'. Screenshots of discussions were downloaded. Kozinets' (2020) criteria for data assessment guided data collection, including that which was relevant, relating to our research questions, and created during the study time frame. Additionally, we collected data from 55 mothers, in a private Facebook group dedicated to 'reflections on mothering' (pseudonym). Interactions involved posing questions and replying to discussions. The group were made aware of our research and gave consent. In keeping with ethical standards, all identifying information from our data has been removed (Hennell *et al*, 2019). The netnography enabled our understanding of the key challenges employed mothers were experiencing, signalled common strategies employed mothers used to help facilitate work, and helped us to identify useful probes for the interview process.

For our in-depth interviews, we purposively sampled 31 employed, homeworking UK mothers, with at least one child living with them full time. We recruited these respondents via online mothering groups, adverts on Twitter and LinkedIn, and through snowballing. Our sample consists of single (2) and married/cohabiting (29) women. Our definition of homeworking encapsulated scenarios from those employed on an ad-hoc basis to full-time working, considered appropriate because all scenarios of working and caring during lockdown were irregular. Our

respondents are aged between 31-47, with a mean age of 37, working in a range of occupations (see Table 1).

Table 1   In-depth interview participants

#	Pseudonym	Age	Children	Employment
1	Carol	38	2 children: aged 4 & 6	HR Manager
2	Lucy	37	2 children: aged 5 & 3	Operations Manager
3	Lisa	38	3 children: aged 2, 3 & 5	Accountant
4	Ellie	39	2 children: aged 17 & 4	Baker
5	Alyssa	33	1 child: aged 3	Project Management Consultant
6	Lillian	44	2 children: aged 14 & 16	Administrator/Business owner
7	Jane	37	2 children: aged 6 & 18	Consultant
8	Amy	39	1 child: aged 1	Consultant
9	Catherine	42	2 children: aged 3 & 2	Academic
10	Tabitha	33	2 children: aged 6 & 5	Estate Agent
11	Nancy	36	2 children: aged 3 & 10 mths	Doctor
12	Lilly	35	2 children: aged 4 & 2	Fitness Instructor
13	Pandora	38	1 child: aged 10 mths	Website Designer
14	Emily	35	1 child: aged 3	Yoga Teacher
15	Isobel	41	2 children: aged 4 & 1	Consultant
16	Diana	31	1 child: aged 1	Academic
17	Freya	38	1 child: aged 1	Administrator
18	Ivy	37	1 child: aged 4	Teaching Assistant
19	Olive	32	2 children: aged 4 & 1	Social Investment Specialist
20	Sarah	33	3 children: aged 5, 2, & 10 mths	Etsy Shop Owner
21	Rebecca	33	1 child: aged 3	Administrator
22	Imogen	40	1 child: aged 2	Academic
23	Sally	40	2 children: aged 1 & 3	Recruitment Business Owner
24	Marianne	46	1 child: aged 3	Secondary School Teacher
25	Jessica	35	2 children: twins aged 2	Postgraduate Student
26	Debbie	37	2 children: 11 and 5	Academic
27	Ethel	32	2 children: aged 2 & 3	Academic
28	Courtney	33	2 children: aged 2 & 5	Town planning consultant
29	Audrey	34	3 children: aged 5, twins aged 1	Secondary School teacher

| 30 | Anne | 44 | 1 child: aged 5 | Administrator |
| 31 | Rose | 36 | 1 child: aged 3 | Search Manager |

Interviews took place via Zoom or Skype, lasting 60-120 minutes. To ensure an ANT informed study of particularities (Law, 1992) we focused on questions prefaced by how participants' daily lives unfolded and how they managed paid and care work during lockdown. We also sought to create 'visual windows' into participant's daily lives, by asking respondents to share photographs as part of their interviews. The protocol for this was based on "responsible photography" (Vince and Warren, 2012, p. 295). Participants captured photographs associated with work such as desks, technology, and documents but also images of untidy rooms, views from windows, and pictures of children within 'home working' areas. We used these photographs as a 'conversational technology' (Gammack and Stephens, 1994, p. 76) during interviews, to develop discussions around the daily organising of work and care, and key actors identified in images.

Over the study duration, we followed up with 15 of our respondents via email to "learn all there is to be learned from the interviews" (Johnson and Rowlands, 2012, p.108). Such ongoing engagement allowed participants and researchers time to reflect on topics already discussed (Pell *et al*., 2020; Dahlin, 2021). We explored whether employed mothers' strategies had changed, and their ongoing experience of organising work alongside childcare at home. Some participants contacted us to share information pertinent to our study, the most significant being notified of their resignation from employment. Our interview data, including follow-up email correspondence, comprises 1237 transcribed pages and 311 images. We present a summary of our study data in Table 2.

Table 2: Data Overview

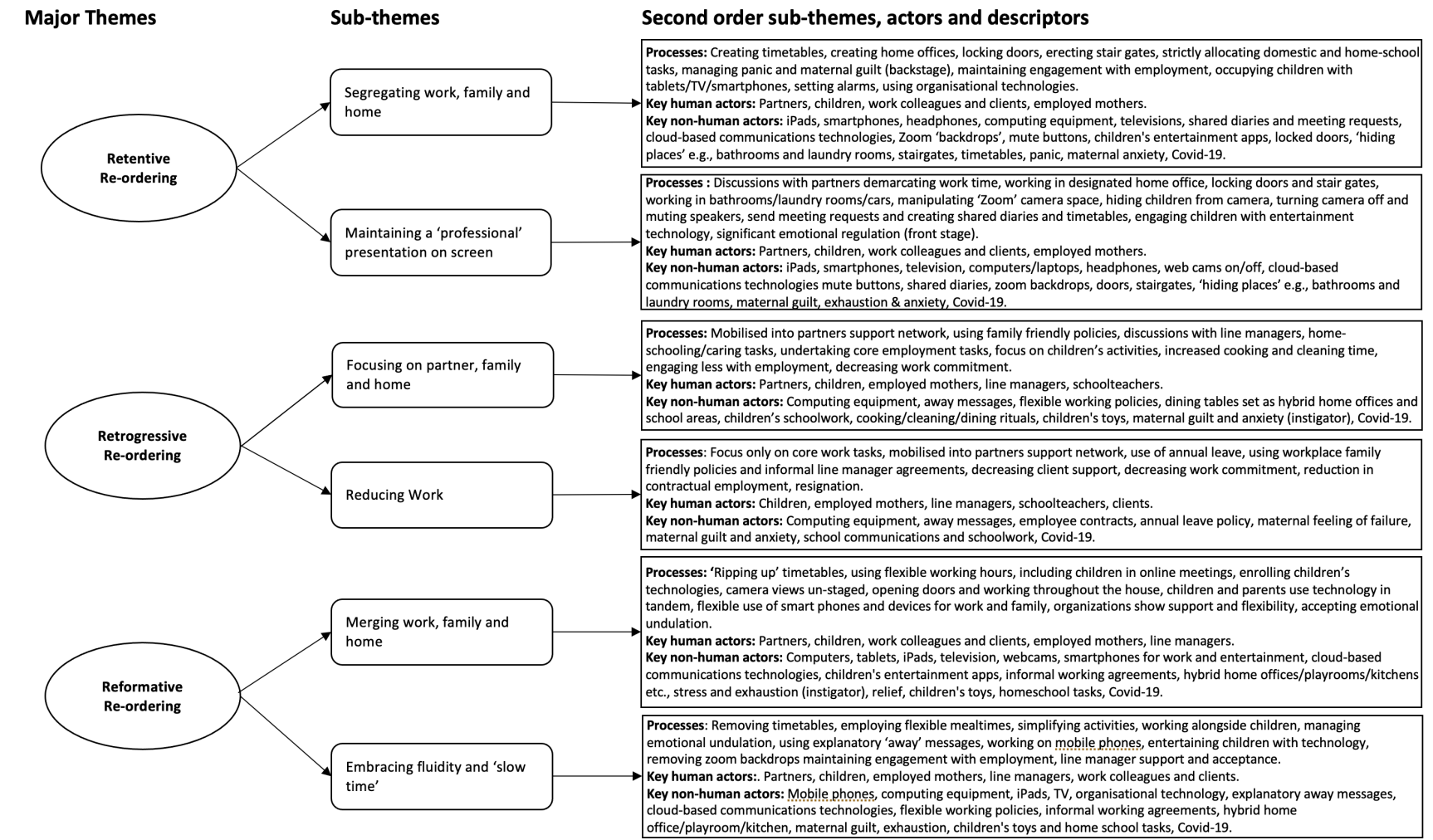| Research Technique	Data Collected	Data Format	Pages
Netnography	471 Screenshots	Images	471
	40 Downloaded Forum Threads	Text	398
Interview Data	Transcribed documents	Text	1237
	Participant images	Images	311
Total			**2417**

Data analysis

Our analysis employed abduction, whereby the "empirical area of application is successively developed, and the theory is also adjusted and refined" (Alvesson and Sköldberg, 2009, p.4). Abductive reasoning is suited to explaining a 'surprising or puzzling case' warranting the modification of existing theory (Charmaz, Thornberg and Keane, 2018, p.750). Upon collecting our data, we began with an existing frame (Kozinets, 2020) comprising elements of ANT. We re-considered our theoretical tools during data analysis and the review process, finally settling on the key concepts of 'mobilisation' (Callon, 1986) and 'modes of ordering' (Law, 1992), as the tools to best explicate patterns identified across our dataset. However, the dataset highlighted complex challenges facing employed mothers during Covid-19, requiring 'modes of ordering' quite unlike those identified in prior research. Our abductive approach allowed us to be informed by ANT whilst simultaneously developing themes from our dataset.

Prior to undertaking thematic template analysis, interviews were transcribed verbatim (King and Brooks, 2016). Template analysis permits the integration of data from different methodological sources within a single template and has been used in ANT-informed studies (Payne, 2016). Our approach to data analysis was manual, enabling a human-based form of understanding which followed the actors (Crang, 1997; Kozinets, 2015). Throughout this process we heeded the core

ANT principle that all objects are potentially relevant and should be subsumed into the analysis (Payne, 2016).

Our dataset was read to allow immersion before undertaking two subsequent stages of analysis. First, we moved between analysis and interpretation, which included identifying repeating patterns. At this stage initial codes were focused on describing what was being discussed and demonstrated by participants, highlighting significant actors. Next, we condensed these codes into more distinct themes as relationships emerged. In this stage we identified several themes encapsulating homeworking mothers' daily processes (see 'subthemes', Figure 1). Finally, these (sub)themes were modified and organized into overarching major themes (Gatrell, 2019; King and Brooks, 2016), in a way that represented how sub-themes related to one another. This culminated in three overarching themes that described how mothers attempted to reorder their networks: 'retentive re-ordering', 'retrogressive re-ordering' and 'reformative re-ordering' (see Figure 1).

Figure 1: Coding Table

Major Themes	Sub-themes	Second order sub-themes, actors and descriptors
Retentive Re-ordering	Segregating work, family and home	**Processes:** Creating timetables, creating home offices, locking doors, erecting stair gates, strictly allocating domestic and home-school tasks, managing panic and maternal guilt (backstage), maintaining engagement with employment, occupying children with tablets/TV/smartphones, setting alarms, using organisational technologies. **Key human actors:** Partners, children, work colleagues and clients, employed mothers. **Key non-human actors:** iPads, smartphones, headphones, computing equipment, televisions, shared diaries and meeting requests, cloud-based communications technologies, Zoom 'backdrops', mute buttons, children's entertainment apps, locked doors, 'hiding places' e.g., bathrooms and laundry rooms, stairgates, timetables, panic, maternal anxiety, Covid-19.
	Maintaining a 'professional' presentation on screen	**Processes :** Discussions with partners demarcating work time, working in designated home office, locking doors and stair gates, working in bathrooms/laundry rooms/cars, manipulating 'Zoom' camera space, hiding children from camera, turning camera off and muting speakers, send meeting requests and creating shared diaries and timetables, engaging children with entertainment technology, significant emotional regulation (front stage). **Key human actors:** Partners, children, work colleagues and clients, employed mothers. **Key non-human actors:** iPads, smartphones, television, computers/laptops, headphones, web cams on/off, cloud-based communications technologies mute buttons, shared diaries, zoom backdrops, doors, stairgates, 'hiding places' e.g., bathrooms and laundry rooms, maternal guilt, exhaustion & anxiety, Covid-19.
Retrogressive Re-ordering	Focusing on partner, family and home	**Processes:** Mobilised into partners support network, using family friendly policies, discussions with line managers, home-schooling/caring tasks, undertaking core employment tasks, focus on children's activities, increased cooking and cleaning time, engaging less with employment, decreasing work commitment. **Key human actors:** Partners, children, employed mothers, line managers, schoolteachers. **Key non-human actors:** Computing equipment, away messages, flexible working policies, dining tables set as hybrid home offices and school areas, children's schoolwork, cooking/cleaning/dining rituals, children's toys, maternal guilt and anxiety (instigator), Covid-19.
	Reducing Work	**Processes**: Focus only on core work tasks, mobilised into partners support network, use of annual leave, using workplace family friendly policies and informal line manager agreements, decreasing client support, decreasing work commitment, reduction in contractual employment, resignation. **Key human actors:** Children, employed mothers, line managers, schoolteachers, clients. **Key non-human actors:** Computing equipment, away messages, employee contracts, annual leave policy, maternal feeling of failure, maternal guilt and anxiety, school communications and schoolwork, Covid-19.
Reformative Re-ordering	Merging work, family and home	**Processes:** 'Ripping up' timetables, using flexible working hours, including children in online meetings, enrolling children's technologies, camera views un-staged, opening doors and working throughout the house, children and parents use technology in tandem, flexible use of smart phones and devices for work and family, organizations show support and flexibility, accepting emotional undulation. **Key human actors:** Partners, children, work colleagues and clients, employed mothers, line managers. **Key non-human actors:** Computers, tablets, iPads, television, webcams, smartphones for work and entertainment, cloud-based communications technologies, children's entertainment apps, informal working agreements, hybrid home offices/playrooms/kitchens etc., stress and exhaustion (instigator), relief, children's toys, homeschool tasks, Covid-19.
	Embracing fluidity and 'slow time'	**Processes**: Removing timetables, employing flexible mealtimes, simplifying activities, working alongside children, managing emotional undulation, using explanatory 'away' messages, working on mobile phones, entertaining children with technology, removing zoom backdrops maintaining engagement with employment, line manager support and acceptance. **Key human actors:**. Partners, children, employed mothers, line managers, work colleagues and clients. **Key non-human actors:** Mobile phones, computing equipment, iPads, TV, organisational technology, explanatory away messages, cloud-based communications technologies, flexible working policies, informal working agreements, hybrid home office/playroom/kitchen, maternal guilt, exhaustion, children's toys and home school tasks, Covid-19.

FINDINGS

Mobilisation of employed mothers

At the start of lockdown, employed mothers experienced shock at being mobilised to comply with roles assigned to them in the powerful, unfamiliar actor-network initiated by the UK Government. At this point of mobilisation, the actors (both human and non-human) that in normal times enabled them to perform paid work (office facilities, childcare providers, schooling, and social sustenance from family and friends) were suddenly unavailable. With limited notice, mothers were expected to manage childcare and education alongside their own paid employment (Sunak, 2021), such responsibilities having been previously delegated to other actors: schools, nurseries, and grandparents. This sudden network disruption temporarily lifted the lid on the 'black box' (Latour, 1987) that previously hid the complex entanglement of actors relied upon to maintain an appearance of organisational primacy, in which maternal employment was presented as apparently unimpeded by childcare responsibilities. Mothers found the "physical and social displacements" (Callon 1986, p. 27) of these actors disruptive and upsetting. Interviewee Rebecca emphasised how *'…when I first found out that the nursery was closing, I thought, oh my goodness, how am I going to cope?'* Debbie described being in a *'constant state of panic"* and Jane explained how she, *"…spent three days crying…trying to figure out how to move forwards."* Netnographic excerpts also highlight the impact of mobilisation and the rapid removal of key actors in their usual networks:

> *'I'm working from home with two children… at the same time the children are climbing the walls…I can't even make a phone call without constant 'mummyyy'.*

To deal with this challenging situation (Callon, 1986) and maintain job performance, mothers began a process of adapting their 'modes of ordering', forming new actor-networks in

response to the complex situations in which they found themselves, where power relations are unequal, and they were mandated to comply with government directives (Law, 1992). As described by Rebecca:

'When lockdown first happened, you…panic and think how am I going to entertain a child and do my work hours and do all the other things…but we just adapt, don't we?'

Retentive reordering, retrogressive reordering, and reformative reordering

Having been mobilised as part of the government actor-network mandating that children should be cared for and schooled at home, employed mothers sought to reorder local actor-networks to facilitate job commitments while simultaneously managing children's needs, moving between three 'modes', namely: *retentive reordering* (seeking to maintain local actor-networks in ways similar to pre-Covid); *retrogressive reordering* (falling back into traditionalised divisions of gendered labour, privileging non-organisational actors) and *reformative reordering* (embracing a more fluid approach to work and family ordering). (see Figure 2).

Figure 2: Maternal modes of re-ordering
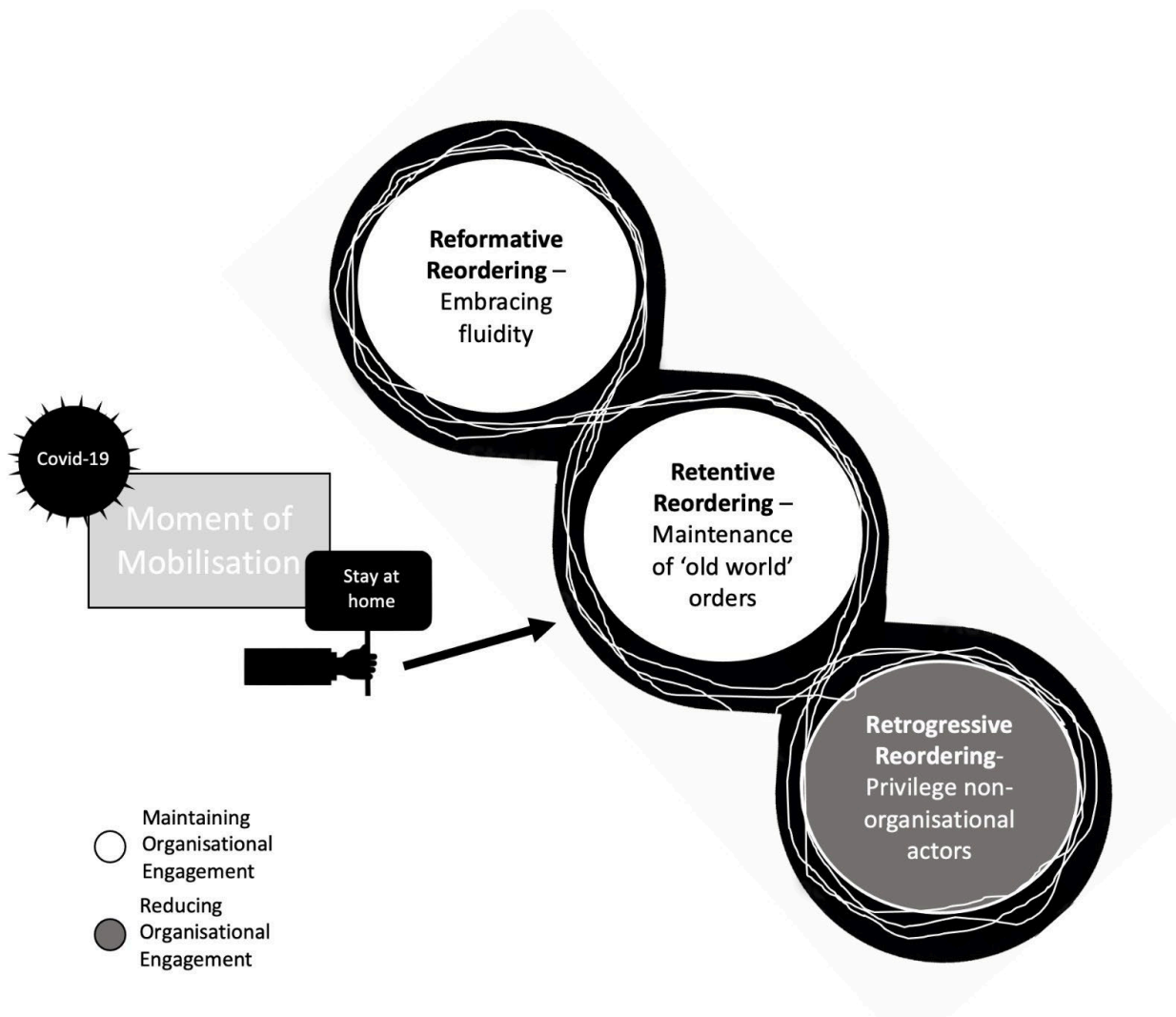
Retentive Reordering

With important actors (schools, teachers, nurseries) no longer available as part of mothers' actor-networks, reordering attempts were initially retentive, mothers lamenting the loss of familiar work-family networks whereby paid work and childcare were spatially and temporally separate. As part of retentive reordering strategies, they sought to maintain a presentation of themselves as 'ideal workers', unencumbered by family responsibilities. In line with typical pre-pandemic corporate expectations that infants should be kept separate from

organisational interactions (Schotzko, 2020), employed mothers tried to ensure that children did not visibly interrupt their working day, as Courtney explains: *"my mum role should be kept on a low profile"*

To keep children hidden from view, employed mothers enrolled non-human actors, drawing on locked doors, and technology to maintain the illusion of separation (See appendix Figure 3). Lisa explains:

'I quickly realised that other colleagues at work were becoming annoyed at the background noise and distraction of…kids in the background… so [I] kept it corporate and kids out of screenshot and away from the noise or move meetings to avoid noise'.

Particularly important in consolidating retentive re-ordering of networks was the need to strictly orchestrate actors. In attempting to reorder networks demarcating separate times for paid work and childcare, mothers devised timetables to create a 'retentive' impression that work-family spheres were separate, as in pre-pandemic times. These "immutable mobiles" (Michael, 1996) were created in the hope partners would treat this timetabling (visually exemplified by Lisa) as *'hard fact'* (see appendix Figures 4 and 5).

As Isobel explains: *'When I fix a meeting in my diary, I have to send one meeting request with the person I'm having the meeting with, and…one meeting request to (husband) so that he doesn't schedule something at the same time.'*

Lisa states: *'It's hard work and not getting any easier…but we have a timetable in the morning that we kind of stick to which helps.'*

Despite the creation of 'immutable mobiles' in attempts to retain (for the benefit of employers) the impression that mothers were managing to separate family and work, mothers found it hard to insist that partners respected maternal schedules:

I was loving the fact my family were with me every day and I started to become really productive at work. Domestic tasks were split evenly. Then recently [its become harder] …Chris' work is getting busier… and I feel helpless". [Jess]

Competing Networks: The unreliable nature of retentive ordering became evident when mothers failed to mobilise allies to comply with this new order. Audrey discusses the gendered pressures she experienced from her husband and his organisation:

'Had to have a few discussions with my husband as it felt like he forgot I had to work…I had to ask him for help with the kids…think he's worried to say he can't do things. He doesn't want to piss off [employer], his words…'.

Lisa also demonstrates the impact of mothers often being the first point of contact when schoolwork also infiltrated the home:

'I was finding it really upsetting…I've got kids screaming at me then school added in …log in with the teacher at 9:00 in the morning, then in the afternoon, then by the afternoon they have to have submitted all their homework'

Such excerpts reveal the challenges women face in mobilising competing networks, where attempts to prioritise their own jobs, clashed with the societal assumption that women are the default primary child-carers (Maushart, 2008).

Hybrid Technological Actors: Where partner support was unavailable, retentive reordering prompted the mediated agency within an employed mother's network to generate novel relations by changing and blurring the usage of once stable actors such that they became messy hybrids. For instance, a home office transformed into a hybrid playroom and workspace, a kitchen became both an office and homeschooling centre (see Figures 6 and 7), and an iPad became a babysitter. Zoom also transmogrified from a flexible working tool into a surveillance

device. The reconfigured infrastructure of actors and objects resulting from the merging of homeworking, home-schooling, and home-based childcare opened an unwelcome window into mother's private lives and meeting co-workers online became fraught with peril, as netnographic data highlights:

'I look a worn-out frazzled mess unlike my office appearance, and I don't want my work colleagues seeing me like this (on Zoom). I also don't want them to see my child losing their mind in their own home, broadcast around my company.'

Nonetheless, hybrid technological actors, which feature in numerous photos (see appendix Figures 8 and 9) and participant discussions were enrolled to keep children occupied while other actors were unavailable. For instance, Courtney allowed children to watch TV so she could 'spend another hour on work in the afternoon' and Audrey 'put baby TV on and tried talking to them while I worked'. Other women shared similar strategies online:

'TV – a lot unfortunately. It is one of the only ways we can feasibly work while doing childcare. It upsets me that this…is happening'.

However, the enrolment of technological devices into women's networks for the purposes of entertaining children (some of whom were supposed to be homeschooled) invoked a powerful actor – maternal guilt.

Hybrid technological actors were thus simultaneously intrusive (workplace and school meetings conducted online in the home) yet supportive of retentive reordering where they temporarily facilitated women in maintaining an impression of separate work and family spheres.

Site of Struggle: Retentive reordering was often fragile. New actors did not always perform correctly. Technologies such as *Zoom* sporadically misfunctioned, partners became preoccupied in competing organisational networks, and school tasks and children disrupted

carefully planned timetables. The ability to operate as an 'ideal worker', maintaining the appearance of organisational primacy amid these chaotic conditions was extremely challenging. Maternal guilt, combined with the struggle of retentively reordering networks led some mothers to 'fall back' into retrogressive reordering processes (Miller, 2011).

Retrogressive Reordering and Exacerbated Inequalities

With networks and support systems destabilised, children at home, and the reassertion of traditional gendered divisions as an organising principle within their networks, some women shifted to retrogressive reordering processes, retreating from their jobs to focus on caregiving, allowing their partners to focus on employment.

Maternal guilt, a long established 'actor' in women's decisions regarding work and family (Miller, 2005, Gatrell, 2004, Ladge *et al*, 2018) was influential in instigating the retrogressive reordering mode. Mothers' expressed concerns about *'neglecting'* home-schooling and childcare while trying to maintain job performance. Carol shortened her working hours to prioritise home-schooling, knowing this could compromise career progression:

'I..have the most guilt about not giving my eldest daughter much home-schooling. I've… accepted that I can't do well at my job at the moment …I've reduced my hours [and] I'm not getting much new/interesting work [now]. It's not great in the long term but for now it's helping my family'.

Similar views were expressed online*: 'Surely, it's neglect to essentially leave your children unsupervised for 7-8 hours a day? Which is…what you're expected to do'.*

In retrogressive mode, rather than seeking to enrol and mobilise partners, women reduced their own working hours and allowed themselves to be mobilised to support employed father networks. The detrimental implications for mothers' careers were evident with mothers 'falling back' into gendered divisions of labour (Miller, 2011). Maternal guilt played a key role in this context, leading some mothers to contemplate quitting employment:

Courtney: *I have big guilt. They ask when I'm finishing and why am I working...should I accept the housewife role? ...If I quit [my job], I would get down being a 'stay-at-home' mum but it would make life easier for the family...My husband would be happy for me to be a stay-at-home mum. There are many feelings that make me want to quit...guilt, anxiety, feelings of not being good enough...'*

Covid As an Actor: Covid's powerful role as an active agent of change, threatened network stability, in some cases leading mothers to question their engagement in paid employment. As an actor it became manifest in the fear of contagion and its derailment of normality. One mother reported how she *'snapped today...working from home with a 13-month-old and a husband at work...I've had enough now. I can't do it.'* At times, mothers felt overwhelmed with paid work and guilt, they struggled to mobilise partner support, and shifted into retrogressive reordering. Fathers' competing networks were thus prioritised and mothers' own job commitments reduced. Interviewee Anna quit her job during the study. Prior to this decision, she discussed the challenges of negotiation with her manager and husband in an attempt to enrol them in her network as key supporting actors:

'*I'm constantly checking emails...I constantly worry about being able to fit everything in. I worry my manager doesn't think I'm working hard enough...Strategies are to get up early and*

try to negotiate with Sam…he tends to be: 'me big important dude, you admin. Me big job. You clean kitchen.' He can have something land on his desk that he has to deal with now'.

In an update a few days later, Anna reports resigning from her job:

'It's all gone a bit blowey-uppy today. I had a meeting which was horrible. At the end I realized that my relationship with my line manager is broken…so tomorrow is essentially finishing up stuff and handover'.

Here we see the challenges for mothers of being mobilised into the powerful government network to limit the spread of Covid-19, particularly where other actors in their local networks fail to be mobilised. Like Anna, two other participants (Courtney and Lisa) later quit their jobs, Courtney commenting, *'I'm done…I can't take it anymore'.*

Reformative Reordering and Embracing the New

Simplified Networks: Amidst the struggle to reorder local actor-networks some mothers began, paradoxically, to enjoy the simplification of daytime activities while families were restricted to the home setting and complex networks of care did not have to be maintained. Lucy discussed the benefits of quiet moments at home now she no longer needed to manage the multiple actors usually required to maintain pre pandemic local networks (e.g., wrap around childcare, transportation), enabling commitment to home and work.

'…A lot of the photos that I sent were all those quiet moments…with school runs and work and all that kind of thing, and kids' activities…sometimes, you find it hard to fit those little simple things in, don't you? Being shattered, so picking him up and him literally just being

exhausted after the day at school, you're in a race against time...I guess that finding time…just spending more time together as a family'.

Employed mothers' usual local networks of care require intense work to maintain. While these complicated arrangements create greater network stability, they also necessitate a '*fast pace'*. In response to the reduced network complexity during lockdown and removal of external actors (for example, school buildings to which children must be transported and collected) participants reported feeling a sense of freedom. For example, Nancy explained: *'there's no school to rush for, no pressure of getting to bed'*. The simplification of maternal networks also facilitated less structured ways of ordering. Emily highlighted this in pictures (see appendix Figures 10, 11, and 12) and discussed how she tried to:

'*…just be in the moment…something lockdown has taught me is I can't control anything outside of these four walls. What I can control is the time we're having together...He just wants to be in bed in the morning, cuddle me until he's ready. He doesn't really want to get dressed until about ten o'clock…I'm not saying, 'We need to get your shoes on, we need to get out the house.' Where our battles used to lie …I'm not controlling that in the same way, everyone's just a bit happier'.*

In this way, mothers permitted and enjoyed the relative flexibility of not being required to follow strict schedules, experimenting with new, or reformative, modes of ordering. Rose talks about moving from a retentive to a reformative mode of ordering where she let go of fixed temporal demarcations.

'*We started out with a very complex OTT routine with too much in it, and then stripped it back…. I think we set our expectations too high, striving to be these 'perfect lockdown*

parents'...we couldn't keep up with ourselves...I had to step back and pick my battles. Thomas loves playing with the iPad and it was a treat for him, and if he was happy, I could get some work done'.

Rose and Catherines's photos (see appendix Figures 13, 14 and 15) highlighted a merging of childcare and work, demonstrative of the way in which, in the reformative mode greater temporal and spatial fluidity was embraced in an altered network between time, mother, child and technologically mediated work and care.

As mothers let go of strict demarcations between employment and care-work, they became more relaxed about children being visible in the virtual workspace. Debbie described how her reformative mode of ordering felt: *'a bit more fluid and not having to not be mum just because I'm working."* And Lucy reflected, *'people realise actually you can work in a much more flexible way, and get your job done with your family'.* Alyssia hoped reformative re-ordering would extend into the future should prior normality be resumed:

'....in one way it's good, because people recognise if I'm doing something and Kyle joins me, people are really accepting...they're like, "Hi, Kyle"...so, yeah, he'll just come sit on my head…And then everybody commenting: "It's fine. It's just normal.'

Conversations with workplace actors transformed mothers' relationships with maternal guilt and technological actors, permitting reformative ordering of networks in which technology was a supporting actor permitting greater engagement with work and childcare, reducing the prominence of maternal guilt in the actor-network. Those women whose employers were mobilised as allies in enabling flexible schedules and work-family fluidity appeared more able to

adopt reformative modes, suggesting organisational support could influence maternal capacity to retain work status. As Lucy explained:

'They're so flexible…like, oh, if that doesn't work, then just do whatever. It's really nice to have that.'

However, such reformative reordering was not a panacea and, as with other modes, was inherently fragile. Instability in maternal networks was easily created by workplace actors who were not persuaded by, or accepting of, such reformative reordering, such as the introduction of a deadline, leading to dissolution of the subjective experience of fluidity and re-instigating feelings of panic and a need to again shift to another reordering mode. Catherine explained,

'… again, kind of throwing a spanner in the works…something due in a couple of weeks' time, and I have no idea how I'm going to get it done…need to be able to concentrate for longer periods'.

Such continuous network breakdown, lack of stability, and ongoing attempts to reorder evidently caused mothers to feel overwhelmed. Courtney expressed, '*I'm exhausted, and I feel anxious…my mind's a mash'*. The netnographic forum data mirrored this sense of ongoing struggle with no sign of it abating, *'I'm fucking exhausted and feel emotionally empty now after nearly three months of it all… sometimes I feel like I am holding everything together but constantly feel like crying/screaming'* and *'I'm running on empty. I've got nothing left to give'*.

DISCUSSION

This study explores the question: *how do employed mothers reorder their networks in response to being mobilised to navigate childcare and paid work within home settings?* In

answering this, our findings make contributions to knowledge on modes of ordering (Law, 1994), homeworking, and employed motherhood, also offering practical contributions for organisations and government.

Our central contribution is the creation of three novel modes of ordering – retentive, retrogressive, and reformative – which provide insights into how employed mothers responded to disruption of networks that usually supported their employment during the pandemic. In doing so, we extend Law's (1994) modes of ordering by examining how networks of actors beyond the walls of traditional organisational structures, within the family domain, influence ordering processes. Prior studies utilising modes of ordering have focused on networks of actors within organisational space (e.g., Law, 1994; Knox et al, 2007; 2008; 2015; Hummel and van der Duim, 2016). This paucity is surprising given the acknowledgement in broader organisational and work-family literatures that work and family are strongly intertwined (e.g. Greenhaus and Beutell, 1985; Edwards and Rothbard, 2000), and given the increasing prevalence of hybrid work configurations (e.g. Ollier-Malaterre et al, 2019; Chung et al, 2021). An exception is Richardson and McKenna's (2014) study, which consider different actors across work and home spheres. However, the context of their study is one in which home-based working was partial, voluntary, carefully planned, and where networks of childcare remained. Our study builds on this work, demonstrating what happens when personal and local networks among employed mothers collapsed, illuminating further the importance of understanding actor-networks and modes of ordering across organisational and family spheres.

The three reordering modes, while underlining the limits of human agency, have broader applicability beyond Covid-19. Against the backdrop of the pandemic, not only do they show in high relief the condition of employed motherhood, but they also elucidate the impact of varying

employee life experience, since all actors outside of the work domain, where competing orders and logics predominate (such as within the home), have a destabilising impact on organisational modes of ordering. Law's (1994) original modes, created in less erratic times when organisations were more rigidly structured, focused on creating order when the workplace was not also a home with competing requirements and expectations. Our retentive ordering mode captures the essence of Law's original modes, a striving to follow workplace rules and fulfil tasks (administration), optimally achieve workplace goals (enterprise), and utilising their specialized skillset (vocation). However, our data highlights what happens when these organizationally focused modes are unsustainable, ousted by collapsing networks which normally facilitate the façade of organizational separation from social institutions like the family.

They are further valuable in helping to highlight the varying positions that employed mothers, operating with limited agency, may take within their local networks and how different actors can be fundamental to the (un)successful adaptation and maintenance of the employed mother actor-network. The experience of working mothers is that ordering employment is frequently unstable and prone to disruption (Hjálmsdóttir, and Bjarnadóttir, 2020). We suggest future research should explore whether these three reordering modes, where attempts to cling to usual orders are juxtaposed alongside experimentation with both historical and more novel orders, might be more broadly applicable to the study of sudden work-family network disruption in which usual networks are destabilised, for instance, when children become unwell, or during the breakdown of a marriage or a family bereavement (Radcliffe et al, 2021). More broadly we suggest that future research drawing on ANT and modes of ordering continue to build upon this line of research by engaging with the notion of the hybrid organisation, as well as with the influence of actors in the home and family sphere. Given the growing move to home-based

working (Beech and Ansell, 2020), particularly following the pandemic (Chung et al., 2021), it is imperative that research keeps pace with rapidly changing organisational realities.

Limited research prior to the pandemic has suggested the potentially gendered nature of the homeworking experience (Sullivan and Lewis, 2001). Our findings extend this research by demonstrating the gendered ordering processes at play as homeworking networks are reordered. We acknowledge Wang et al's (2020) assertion that understanding homeworking in the pandemic requires new, contextually relevant knowledge, and our findings thus contribute to our understanding of homeworking in this context. Future research should further explore these modes of reordering in mobilising homeworking in different contexts, particularly where such moves may be non-voluntary and where actors in the home sphere are prominent. The domestic sphere while never quite off limits, in pre-pandemic times at least, was still regarded as a relatively private sanctum. However, homeworking coupled with the hybrid technological actors we detailed, now enable organisations to peer into the lives of their employees, making it increasingly difficult for employees to conceal their lives beyond employment. Employees have long been wary of the intrusions of workplace technology monitoring their actions via computers and surveillance devices (Balica 2019). Our findings reveal how these actors can be simultaneously intrusive and supportive. We suggest that future research explores the nuances and paradoxical nature of technology and how it is utilised by organisations and employees in the context of homeworking, particularly in relation to the ways in which it is used to strengthen or breakdown notions of the ideal worker.

Finally, we make an important contribution to the literature on motherhood and employment. Our findings highlight the gendered nature of actor-networks enabling employment, since mothers are embedded in different actor assemblages than those of employed

fathers. Drawing on ANT's theoretical tools helped lift the metaphorical lid on the particular 'black box' (Latour, 1987) that usually encloses the complex networks required to enable maternal employment. Our findings not only echo Saujani's (2022, p. 4) assertion that the "pandemic washed away all the tenuous arrangements of work-life balance". By developing three modes of reordering, we contribute new insights into the process that mothers traverse when networks of care breakdown. We demonstrate that no mode is a panacea or without tensions and sacrifice. They reveal the bleak consequences of 'mobilising' employed mothers on a grand scale to support state policy. Our findings show how this mobilisation has invoked a 'retraditionalisation' of gender roles (Gash and Plagnol, 2020), with the removal of networks of care often leading families to fall back into retrogressive reordering modes where supporting men's employment networks takes priority.

These findings lead us to practical recommendations for organisations and governments. Regarding the present situation, ONS data show the detrimental impact on women's employment prospects (ONS, 2020). Yet limited government action has been taken to address these constraints on mothers' careers. We suggest that such inaction is problematic not only for women's careers but for society and the economy more broadly. Empowering women enhances economic growth (Duflo, 2012) and diverse workforces leverage competitive advantage, enhancing both production and performance (Huselid, 1995; Richard and Miller, 2013). Consequently, we recommend that an awareness of gendered networks, and therefore distinct gendered experiences of mobilisation, should be considered as part of a gender impact analysis in future government agendas, prior to implementation. Further, as we seek to rebuild the UK economy the business case for strengthening the networks that sustain women's employment, as well as prioritising the equality agenda based on fairness and social justice, is compelling.

Our findings highlight the need to move away from outdated notions of women employees as expendable and instead seek to encourage the enrolment of actors supportive of networks that sustain maternal employment. Retrogressive reordering was shown to be particularly pertinent in situations where enrolling supportive actors is highly challenging, meaning that so too is mothers' employment. Organisations and governments should therefore implement strategies that increase availability of supportive actors in these networks, such as free childcare for all, while also seeking to develop more nuanced and personalised interventions. As employment networks and reordering processes are highlighted as gendered, fathers should be encouraged to tackle more unpaid care work, and the responsibilities of childrearing spread more broadly (Collins 2020) to enable mothers and fathers to be more readily mobilised within one another's local networks. Further, maternal guilt was shown to be a key disruptive actor in maternal employment networks, pointing to the need to critically question and challenge intensive mothering norms (Ennis, 2014) in future government societal level narratives.

As homeworking continues to become increasingly commonplace (Beech and Ansell, 2020), technology will continue to open windows into employees' homes. Guidelines surrounding the appropriate use of organisational technologies are urgently required to ensure that such intrusion is supportive, not intrusive. Relatedly, organisations and governments need to question current ideal worker norms, particularly within contexts where this is a danger of leading to retrogressive reordering modes where retentive reordering is no longer sustainable for prolonged periods. In other words, rather than employees being expected to maintain a continuous veneer of work primacy, untouched by other commitments (Blair-Loy, 2009; Reid, 2015), particularly when workspace intrudes on home life, organisations should work to support diverse ordering modes.

CONCLUSION

Our findings demonstrate how, in the context of network disruption during an enforced unplanned mobilisation to homeworking, reordering processes unfolded for employed mothers, moving between retentive, retrogressive, and reformative modes, and with particular precarity. By adopting a countervailing sociological approach, that of ANT, we draw attention to the often-hidden networks of care that sustain maternal employment and the illusion of organisational primacy. Utilising this lens enabled us to examine what happens when these networks break down and attempts are made to reorder, engaging actors, human, technological, and emotional, spanning organisational and family domains. Further, by focusing on the local networks of less powerful actors we have gained insight into some of the unintended consequences of 'mobilisation' in response to global emergencies. In doing so we demonstrate the persistent gendered nature of work-family networks within which mothers are embedded and the subsequent fragility of maternal employment. Consequently, we urge governments and organisations to act urgently to better enable employed mothers to create more robust networks. This might include more extensive flexible working options, with less rigidity regarding the work family divide, not only during the pandemic, but also in the future.

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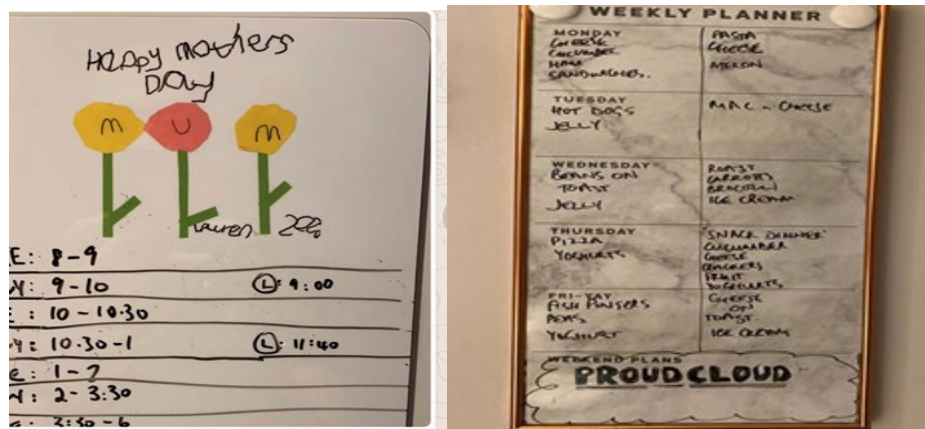
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Appendix

Figure 3   Children occupied by technological actors

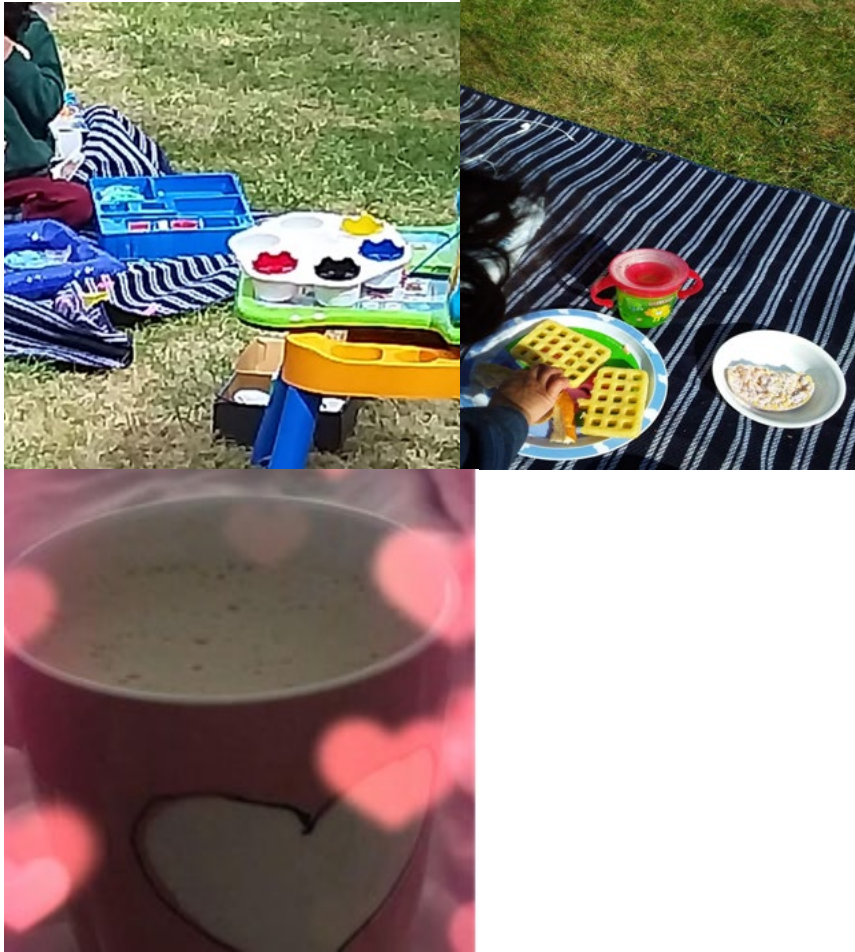Figures 4 and 5   Participant 'lockdown' timetables

Figures 6 and 7 Hybrid Actors

Figures 8 and 9   Technological Actors in retentive reordering

Figures 10, 11 and 12   Being 'in the moment' with family

Figures 13, 14 and 15 Merging of Childcare and Work