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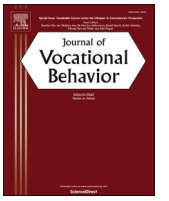

Well-being and empowerment perceptions in a sudden shift to working from home☆

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ABSTRACT

In the literature on the antecedents and mediators of employee well-being, there is little or no acknowledgement of sudden changes in the social and environmental context in which perceptions of well-being are formed. Contextual influences are rarely so impactful and unexpected as those associated with the COVID-19 pandemic. To continue operating within lockdown restrictions, many organizations, apart from those unable or unwilling to initiate such changes, abruptly adopted a work from home (WFH) or hybrid working pattern. These circumstances raise novel questions about the influence of impactful, unanticipated contextual factors on employee well-being outcomes. To address these questions in the context of a shift to WFH, we tested a model adapted from aspects of Event Systems Theory (EST) and the Psychology of Working Theory (PWT). Central to our theoretical adaptation was a unique perspective on PWT "decent work" perceptions based on principles of empowerment. In a study of 337 employees during the lockdown period, we applied a Bayesian multilevel model to investigate the contrast between in-lockdown perceptions relative to current pre-lockdown perceptions. Results suggested the contextual shift to WFH related negatively to relative perceptions of well-being, job satisfaction, and organizational commitment. Empowerment significantly mediated all well-being outcomes. Organizational support, neuroticism, and home readiness related directly to empowerment and indirectly to well-being outcomes via empowerment. We discuss how sudden contextual changes interacted with relationships observed in our model, and how our findings progress a context-responsive adaptation of EST and PWT in the new world of WFH.

1. Introduction

Affective employee well-being, defined as the frequency and intensity of unpleasant or pleasant emotional workplace experiences (Duffy et al., 2016; Warr, 1990), presents a concern of critical importance to organizations seeking to foster amicable and sustainable working environments (Warr, 1999). A desire to develop well-being has led to an increased focus on its enhancement in organizations and in wider society (Sonnentag, 2015). However, a consideration of contextual factors (also see Rousseau & Fried, 2001) has been suggested as an area for development in the literature on employee well-being (e.g., Shirmohammadi et al., 2023; Zheng et al., 2015).

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In cases where context is acknowledged, profound effects on well-being-related outcomes have been reported (e.g., in the context of migrant workers, see Hargreaves et al., 2019; Johns, 2006; Moyce & Schenker, 2018; Rousseau & Fried, 2001; Sterud et al., 2018). Even less attention has been directed towards how sudden, unanticipated contextual changes might affect well-being perceptions (e.g., Donovan, 2022; Rudolph et al., 2021). A focus on sudden contextual change represents an important contribution because of its potential to substantially alter well-being perceptions (Malinen et al., 2019). It is these underexplored dimensions of context that raise concerns about the completeness and adequacy of knowledge about perceptions of well-being and their dynamics.

A salient and recent contextual influence relevant to employee well-being perceptions was the abrupt transition to enforced work from home (WFH) due to organizational and governmental decisions relating to the COVID-19 pandemic (Kniffin, Narayanan, Anseel, et al., 2021; Venkatesh et al., 2021). WFH is defined as "the use of information and communication technologies (ICT) such as smartphones, tablets, laptops and/or desktop computers, for work that is performed outside of the employer's premises", in this case, from their domestic living premises (Eurofound and the International Labour Office, 2017, p. 3). International labor surveys suggest that a sizeable proportion of organizations have moved to a WFH or hybrid pattern of work since COVID-19 pandemic lockdown directives ceased. For example, in the UK, WFH or hybrid work is relevant to around 44 % of the current workforce (Office for National Statistics, 2023) and in the USA, around 40 % of employees are reported to either WFH or on a hybrid arrangement (Barrero et al., 2023). The shift towards home or hybrid working raises a key, yet relatively unexplored, contextual consideration for knowledge about well-being (Yang et al., 2023).

The contextual shift towards WFH remains relevant to well-being research both in situations akin to and beyond those surrounding the pandemic. Several authors have described the future of work as involving the sustained use of the home for work purposes, which could lead to an increase in dynamic shifts between work and home for employees (Antonacopoulou & Georgiadou, 2021; Couch et al., 2021; Musleh, 2022). A shift to WFH could present an appealing prospect for multiple reasons, including perceived benefits of WFH for job seekers, as part of the effort to address climate change, as an approach towards reducing costs, and as a response to disaster recovery (Dwivedi et al., 2022; Gopalan, 2022; Kniffin, Narayanan, Anseel, et al., 2021; Rudolph et al., 2021).

However, existing research studies, particularly on the topic of well-being perceptions (see Zheng et al., 2015), have largely "overlooked the role of context in both their analysis and findings" (Shirmohammadi et al., 2023, p. 2). Knowledge incorporating impactful, and particularly sudden contextual influences, such as a move to enforced WFH conditions, could offer a more complete perspective for the development of organizational theory (Kniffin, Narayanan, & van Vugt, 2021).

We contribute to knowledge about contextual influences on employee well-being perceptions. Specifically, we examine perceptual contrasts that arise from transitioning to WFH conditions due to restrictions relating to the sudden onset of the pandemic through a synthesis of *event systems theory* (EST) and the *psychology of working theory* (PWT) that allows for responsiveness to contextual changes. We draw on and adapt elements of EST and PWT in the context of perceptions during the sudden shift to lockdown relative to (current) perceptions of the period prior to lockdown. In this contextual frame, we investigate the possibility that well-being outcomes are associated with antecedent support-relevant predictors that are mediated through empowerment perceptions. Our acknowledgement of perceptions relating to lockdown and enforced WFH responds to calls in the literature to address the potentially impactful effects of sudden social and environmental contextual changes in the study of well-being (e.g., Shirmohammadi et al., 2023).

1.1. Event systems and the psychology of working theory

In combination, EST and PWT provide complementary contextual perspectives (e.g., those associated with the pandemic) on employee well-being. EST (Morgeson et al., 2015) defines critical events as contextual circumstances that are novel, disruptive, and that alter or create new behavioral patterns in organizations. In keeping with this perspective, Venkatesh et al. (2021) described the pandemic as a critical event and drew on the EST framework in their study of organizational perceptions. In contrast to traditional on-site work, Venkatesh et al. concluded that the sudden adoption of WFH conditions can modify relationships between situational characteristics, psychological factors, and work-related perceptions.

While EST provides a theoretical frame for reflective perceptions of critical events, PWT (Duffy et al., 2016) offers theoretical predictions of individual well-being perceptions. PWT describes how these outcome perceptions can be affected by sociopsychological factors. In the following, we propose a pandemic-related, EST-contextualized adaptation of relevant aspects of PWT centered on predicting individual well-being outcomes based on antecedent sociopsychological perceptions. Adaptations of PWT that acknowledge pandemic-mandated WFH practices are not without precedent (see Allan & Blustein, 2022; Blustein et al., 2022; Duffy et al., 2022).

PWT (we refer the reader to the graphical representation of PWT in Duffy et al., 2016, p. 129) describes the prediction of attitudinal work outcomes, such as the fulfilment of survival and social needs, and individual difference perceptions such as well-being. This prediction is based on macro-level predictors (e.g., economic constraints, work volition) and micro-level perceptual moderators (e.g., personality, perceived social support) via a central mediator labelled *decent work*. Decent work is defined as that which allows for time off and adequate rest, provides adequate compensation, health care, physical and interpersonal safety, and has values that align with one's own family and wider society (see Duffy et al., 2016). It is this PWT definition of decent work that is common across different literatures (e.g., Duffy et al., 2022; Ribeiro et al., 2022). However, we provide an alternative perspective on this concept below in our discussion of empowerment.

While PWT is a broadly-defined framework that addresses economic conditions, careers, social needs, and well-being outcomes (Duffy et al., 2016), the focus in the present study is on predicting individual well-being-related outcomes. We therefore concentrate on aspects of PWT that are oriented towards individual employee well-being perceptions. We investigate how these individual perceptions are modified by a contextual EST critical event manifest in an enforced, sudden move to WFH conditions. Our aims require us not only to focus on individual perceptions, but also to adapt the PWT concept of decent work as well as aspects of well-being-related

outcomes. Our arguments below are structured relating to: (a) well-being outcomes, (b) antecedent predictors (i.e., support, personality, and readiness), and (c) the mediation of relations between these outcomes and antecedent predictors.

1.2. Employee well-being outcomes

Perceptual outcomes described in PWT include those relating to affective well-being (Duffy et al., 2016). Duffy et al. state that higher levels of well-being are associated with "higher life satisfaction, higher positive affect, and lower negative affect" (p. 138). Both during the COVID-19 pandemic (e.g., Brown & Leite, 2023; George et al., 2022) and in the wider context of WFH (e.g., Demerouti, 2023; Zheng et al., 2023), affective employee well-being (Warr, 1999) is considered an outcome of central interest (Page & Vella-Brodrick, 2009). A relevant consideration regarding well-being is that it is unstable, dynamic, and responsive to environmental contingencies (Sonnentag, 2015). Thus, the move to forced WFH conditions during the pandemic and any associated emotional burden (see Zapf, 2002) could profoundly impact well-being perceptions.

In addition to affective well-being, Duffy et al. (2016) refer to the importance of developing work experiences that are "personally satisfying and meaningful" (p. 138). This idea corresponds to three constructs often presented as outcomes in the organizational literature, specifically: job satisfaction (overall emotional response to a job, Thompson & Phua, 2012), turnover intentions (intent or desire to leave an organization of current employment, Kelloway et al., 1999), and organizational commitment (perceived organizational allegiance, Meyer & Allen, 1997). These variables have been included previously as outcomes in the context of work during the pandemic (e.g., Matthews et al., 2022; Ninaus et al., 2021). Moreover, in the general literature on WFH, job satisfaction (De Menezes & Kelliher, 2017; Wheatley, 2017), employee turnover intentions (Choi, 2020; Golden et al., 2008; Overbey, 2013), and organizational commitment (Deschenes, 2023; Wang et al., 2020) all routinely feature as principal outcomes.

An important consideration relevant to our conceptualization of well-being-related outcomes is our focus on relative perceptions. When faced with a sudden move to WFH, individuals likely perceive their current situation (e.g., an ill-equipped office at home with no childcare) relative to their current perceptions of their previous working conditions (e.g., a well-equipped office with children attending school during office hours). This idea is critical because we propose that employees, managers, and organizations will be affected by such relative perceptions. An acknowledgement of prior on current perceptions represents a focus for previous research on perceptions of well-being (e.g., O'Brien, 2022) and on other topics such as performance ratings (e.g., Day, 1995). An acknowledgement of prior perceptions has been found to optimize current perceptions across different modalities (Snyder et al., 2015) and, moreover, fits with our application of EST, which is based on a process of reflective sensemaking in response to critical events (Morgeson et al., 2015).

1.3. Antecedent predictors: support, personality, technology, and home readiness

Background characteristics of the work environment and the employee are of relevance when considering well-being outcomes. Duffy et al. (2022) propose social support as a key influence in the set of background characteristics in PWT. In the WFH literature, evidence has been found that social support (defined as encouragement and assistance from others, including that offered by organizations, managers, and colleagues) directly predicts well-being-relevant outcomes (Maunder et al., 2006; Rhoades & Eisenberger, 2002; Rudolph et al., 2021; Wood et al., 2022; Yogalakshmi & Suganthi, 2020). In a related sense, managerial or supervisory support has been implicated in predicting psychological hardiness (Cole et al., 2006) and collegial support in alleviating perceptions of social isolation associated with WFH (e.g., Šmite et al., 2023). How support perceptions are affected by contextual changes is, however, currently unclear.

While social support might play a role in explaining variance in well-being outcomes, so might the psychological characteristics of an individual. In addition to support perceptions, proactive personality (e.g., Thompson, 2005) has been proposed as an antecedent individual difference variable of interest within the PWT framework (Duffy et al., 2016). In studies of the pandemic, several researchers have investigated the role of personality, and particularly conscientiousness, as a predictor of attitudinal outcomes. Venkatesh et al. (2021) found that in WFH conditions, those with higher conscientiousness tended to experience higher strain and lower satisfaction. Donovan (2022) moreover found that early in the pandemic, conscientiousness predicted employee engagement.

Although largely under-researched, the context surrounding a move to WFH, particularly as a consequence of rapid decisions requiring this transition, could heighten the potential for work stress and strain (Kniffin, Narayanan, Anseel, et al., 2021). Personality, especially the neuroticism factor (defined as degree of emotional stability, Tai & Liu, 2007), has been implicated in the prediction of stress and strain perceptions. For example, Tai and Liu found a direct relationship between neuroticism and stress, exhaustion, and disengagement. Cieslak et al. (2007) found evidence that neuroticism moderated the relationship between social support and perceptions of work strain. Because those lower on neuroticism could be more resilient to the effects of stress and strain (Anicich et al., 2020), we suggest that neuroticism may act as an important predictor of work-related attitudes in the conditions associated with a sudden shift to the WFH context.

When faced with a sudden move to WFH, perceptions relating to the suitability of an employee's work environment could also influence well-being perceptions. During the pandemic, two such perceptions were suggested as being relevant to the development of positive attitudes towards WFH. These include (a) comfort with novel and expanded use of technology for organizational communication and interaction (technology readiness, see Donovan, 2022; Grelle & Popp, 2021; Kniffin, Narayanan, Anseel, et al., 2021) and (b) the preparedness and appropriateness of one's home environment for work (home readiness, see Camacho & Barrios, 2022; Rudolph et al., 2021). As a precursor to developing a positive attitude towards WFH, this literature suggests that workers first require confidence with relevant technology use and a home that accommodates WFH demands.

Those who were not previously confident with the use of technology might have been impacted negatively by the move to WFH

during the pandemic (Kniffin, Narayanan, Anseel, et al., 2021). Similarly, if an individual's home was not previously set up to accommodate the demands of work, then a sudden move to WFH could impact negatively on that individual. Evidence for these ideas was reported by Camacho and Barrios (2022), who found that technostress and home-work conflict related to well-being and strain for WFH employees. An implication of this finding was that more positive attitudinal outcomes could be facilitated if, in the first place, WFH employees were more confident with technology and their home environment was suited to the demands of work.

The idea that the home should accommodate WFH demands has been researched in the literature on teleworking (e.g., Bailey & Kurland, 2002; Choi, 2020). Central to this notion is that constraints should first be managed around childcare, homeschooling, and the segmentation of work and family roles (Kossek et al., 2006). Once these WFH-related constraints are adequately addressed, then it is possible to mitigate potential negative attitudinal outcomes such as conflict, stress, and strain (Anderson et al., 2015; Lapierre et al., 2016; Wood et al., 2022). Rudolph et al. (2021) suggest that those who did not routinely WFH prior to the pandemic might have lacked "the adequate space, equipment, and materials to do their work in this unusual setting". Thus, with little or no time to prepare, the sudden move into WFH might have intensified negative implications for employees during the pandemic. The impact of this sudden contextual shift on employee perceptions has not, to our knowledge, been directly addressed in the literature. Nonetheless, the literature discussed above suggests the possibility that suitability and readiness of an employee's environment could act as an important predictor of well-being outcomes in the shift to WFH.

To summarize, we suggest, based on findings in previous literature, that support, neuroticism, and readiness perceptions are possibly key antecedent predictors of attitudinal outcomes when shifting context into WFH conditions. Our treatment of support includes that from the perspectives of perceived organizational, collegial, and managerial support. We include neuroticism in our study because it is often found to be implicated in relationships involving well-being outcomes. Our treatment of readiness acknowledges preparedness related to technology and the use of one's home for work when moving into a WFH scenario. What is yet unknown, and what our study aims to address, is how any of these factors are related to well-being perceptions involving a sudden contextual change towards WFH conditions.

1.4. Mediation via empowerment

To this point, we have addressed background characteristics such as personality and workplace suitability. However, PWT describes a mediating process that links background factors to well-being outcomes. Specifically, PWT describes how antecedent characteristics relate to well-being outcomes via a decent work central mediator (as defined above). England et al. (2020) describes how experiences of economic constraints and marginalization predict perceptions of decent work. This perspective emphasizes how external economic and social forces might affect the work-related perceptions of an employee. In a WFH context and relating to well-being outcomes, Donovan (2022) suggests priorities around employees perceiving they are trusted to manage their working hours such that they can balance time for productivity and adequate rest.

If an organization empowers employees in WFH conditions (see Spreitzer, 1995), then employees may have sufficient autonomy over work and rest patterns. This is consistent with the decent work notion that workplaces should accommodate "adequate free time and rest" (Duffy et al., 2016, p. 130). Further in keeping with the definition of decent work, it is possible that empowered employees will be afforded the liberty to "take into account family and social values" (Duffy et al., p. 130; Graves & Luciano, 2013). For example, being empowered to organize work in a way that accommodates personally important goals and activities, such as exercise and homeschooling (Kossek et al., 2006). We thus propose that perceived psychological empowerment (which we refer to as *empowerment*), is an effective adaptation of decent work perceptions in the WFH context where a focus is placed on well-being outcomes. Empowerment is defined as perceptions of work-related meaningfulness, self-perceived competence, self-determination (i.e., autonomy perceptions), and impact (i.e., influence, Spreitzer, 1995) over work activities.

The possibility exists that during the pandemic, perceptions of empowerment were negatively affected by the move to WFH. Kniffin, Narayanan, Anseel, et al. (2021) suggest that employers were generally reluctant to adopt WFH practices prior to the pandemic due to WFH restricting the visual monitoring of employee behavior. The reaction during mandatory lockdowns might "have caused managers, instinctively, to over monitor employees, leading employees to feel distrusted, less empowered, and disengaged from work" (Donovan, 2022, p. 115). This adds a unique consideration in that, relative to current perceptions of previous circumstances, the move to WFH during the pandemic might have reduced empowerment due to over-monitoring on the part of managers.

The possibility that an impactful contextual influence, such as a move to WFH, relates to empowerment perceptions, is of interest, both to the development of organizational theory and practice. Empowerment has been found to mediate relationships between several work-related predictors and outcomes in a variety of different literatures. These include mediating relationships between emotional intelligence and job satisfaction (Gong et al., 2020), psychological climate and job satisfaction (Carless, 2004), and transformational leadership and organizational commitment (Avolio et al., 2004). Donovan (2022) presented a rare example of a study involving empowerment in the early stages of the pandemic and found that empowerment predicted employee engagement. Donovan concluded that the relationship observed between empowerment and engagement early into the pandemic served as evidence that trusting employees to complete their duties and make decisions worked effectively under WFH conditions. However, the relative perceptual effect on empowerment contingent on a contextual shift to WFH is, to our knowledge, largely unknown.

Empowerment perceptions depend on job-related support via the type of work assigned, development of employee capabilities, degree of autonomy, and extent of decision power (Spreitzer, 1995; Yogalakshmi & Suganthi, 2020). However, within the strong contextual influence of a sudden move to WFH during the pandemic, the nature of these dependencies require clarification. Individual background factors such as personality (Venkatesh et al., 2021), confidence with using technology (Grelle & Popp, 2021), and the degree to which one's home is suitable for work (Rudolph et al., 2021) have been raised as key antecedent considerations that might

influence the ability for employees to perceive a sense of empowerment in their home workplace.

1.5. Model development and hypothesized effects

Fig. 1 shows the hypothesized relationships in our model, drawing on key PWT concepts reflectively perceived within the context of an EST critical event manifest in a sudden move to WFH conditions (e.g., Camacho & Barrios, 2022; Donovan, 2022; Kniffin, Narayanan, & van Vugt, 2021). Our model retains individual predictions associated with PWT while incorporating elements of EST that are responsive to contextual changes. Fig. 1 summarizes the prediction of employee well-being outcomes akin to those presented in PWT (well-being, intent to leave [i.e., turnover intentions], job satisfaction, and organizational commitment). We propose antecedent predictors adapted from PWT, including those involving (a) support (including organizational, managerial, and collegial support), (b) emotional stability, as represented by neuroticism, and (c) background readiness (perceived technology and home readiness for work). These predictors are theorized to relate to empowerment as the central mediator and a WFH-relevant adaptation of the PWT decent work concept.

To acknowledge relative perceptions (i.e., perceptions within lockdown relative to current perceptions of the pre-lockdown context) arising from the under-researched effects of context (see Shirmohammadi et al., 2023), we conceptualize the model in Fig. 1 within a multilevel framework. This framework includes a within-participant pre- and during-WFH factor intended to reflect relative perceptions due to the sudden move to WFH because of the pandemic. We moreover include in our model a consideration of work complexity in the form of occupational subgroup type. This is because varying levels of job complexity might involve different degrees of empowerment (e.g., entry-level jobs may be less oriented towards empowerment than senior positions).

We present all hypothesized direct and indirect relationships, their hypothesized directionality, and group-level effects in Table 1. Each variable is classified as a predictor (support, neuroticism, readiness), mediator (empowerment), or outcome (intent to leave, well-being, job satisfaction, and organizational commitment), as described above and as shown in Fig. 1.

To summarize the basis for hypotheses central to the present study: support (including organizational, managerial, and collegial support, Hypothesis, H1a) is predicted to relate positively to empowerment because support could foster conditions necessary for empowerment perceptions (Musleh, 2022; Rudolph et al., 2021). Neuroticism (H1b) is predicted to relate negatively to empowerment, because greater anxiety is likely at odds with perceptions of competence and autonomy (Spreitzer, 1995; Tai & Liu, 2007). Background readiness (including technological and home readiness for work) is hypothesized to relate positively to empowerment (H1c) because comfort with technology use and a home suited to work are likely to foster conditions necessary for impact and self-autonomy perceptions (Anseel et al., 2015; Camacho & Barrios, 2022; Grelle & Popp, 2021). H1a–H1c are stated as follows:

H1a. Support (i.e., organizational, managerial, and collegial support) is positively associated with empowerment.

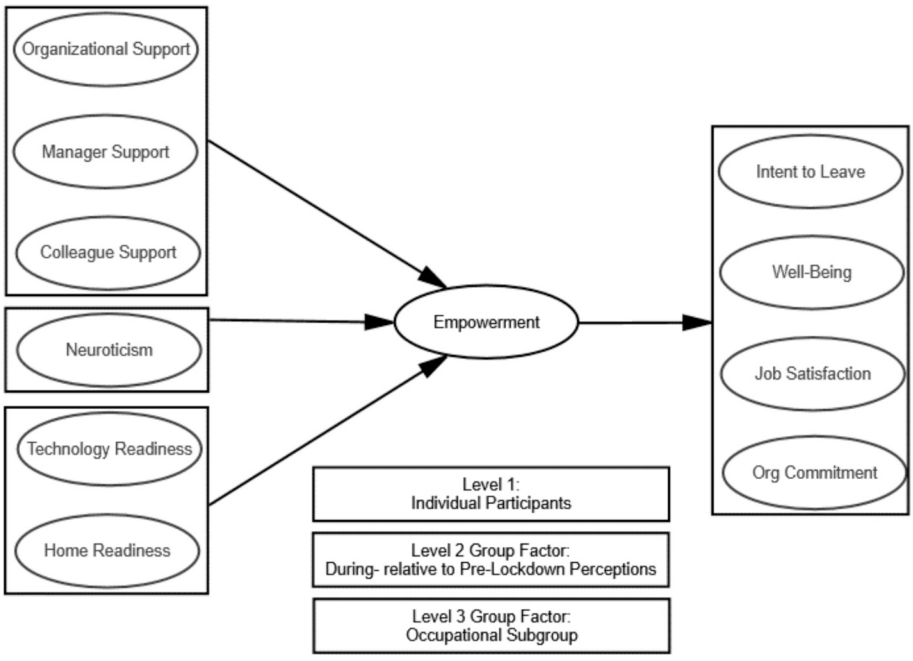

Fig. 1. Conceptual representation of relations between antecedent predictor, mediator, and outcome variables contingent on contextual perceptions. *Note*. This model is contextualized within a 3-level multilevel framework, comprising (a) individual participants, (b) a within-participants factor –for during- relative to pre-lockdown perceptions nested in participants, and (c) a between-groups factor for participants nested in occupational subgroups as a proxy for job complexity.

Table 1
Hypothesized direct and indirect effects.

Level/parm#	Predictor	Med/Pred	Outcome	Direct effects			Indirect effects		
				Hyp	Hyp dir	Supt	Hyp	Hyp dir	Supt
1. Ind									
1	Org supt	Empt		1a	+	Yes			
2	Mngr supt	Empt		1a	+				
3	Col supt	Empt		1a	+				
4	Neuro	Empt		1b	−	Yes			
5	Tech	Empt		1c	+				
6	Home	Empt		1c	+	Yes			
7		Empt	Intent leave	2	−	Yes			
8		Empt	Well-being	2	+	Yes			
9		Empt	Job sat	2	+	Yes			
10		Empt	Org comit	2	+	Yes			
11	Org supt	(Empt)	Intent leave				3a	−	Yes
12	Org supt	(Empt)	Well-being				3a	+	Yes
13	Org supt	(Empt)	Job sat				3a	+	Yes
14	Org supt	(Empt)	Org comit				3a	+	Yes
15	Mngr supt	(Empt)	Intent leave				3a	−	
16	Mngr supt	(Empt)	Well-being				3a	+	
17	Mngr supt	(Empt)	Job sat				3a	+	
18	Mngr supt	(Empt)	Org comit				3a	+	
19	Col supt	(Empt)	Intent leave				3a	−	
20	Col supt	(Empt)	Well-being				3a	+	
21	Col supt	(Empt)	Job sat				3a	+	
22	Col supt	(Empt)	Org comit				3a	+	
23	Neuro	(Empt)	Intent leave				3b	+	Yes
24	Neuro	(Empt)	Well-being				3b	−	Yes
25	Neuro	(Empt)	Job sat				3b	−	Yes
26	Neuro	(Empt)	Org comit				3b	−	Yes
27	Tech	(Empt)	Intent leave				3c	−	
28	Tech	(Empt)	Well-being				3c	+	
29	Tech	(Empt)	Job sat				3c	+	
30	Tech	(Empt)	Org comit				3c	+	
31	Home	(Empt)	Intent leave				3c	−	Yes
32	Home	(Empt)	Well-being				3c	+	Yes
33	Home	(Empt)	Job sat				3c	+	Yes
34	Home	(Empt)	Org comit				3c	+	Yes
2. Grp									
35	D-P	Empt		4	−	Yes			
36	D-P		Intent leave	4	+				
37	D-P		Well-being	4	−	Yes			
38	D-P		Job sat	4	−	Yes			
39	D-P		Org comit	4	−	Yes			

Note. Ind = individual, parm# = parameter number, Grp = group, within-participant effect, parm = estimated parameter Hyp = hypothesis, Hyp dir = hypothesized direction of effect, Supt = support for hypothesized effect where "Yes" = the effect was $p < .05$ or lower and in the hypothesized direction. Org supt = organizational support, Mngr supt = manager support, Col supt = colleague support, Tech = technology readiness, Home = home readiness, Intent leave = employee turnover intentions, Job sat = job satisfaction, Org comit = organizational commitment. (Empt) indicates indirect effects. Spaces in the Supt columns indicate effects for which credible intervals crossed zero. D-P = during relative to pre-lockdown perceptions.

H1b. Neuroticism is negatively associated with empowerment.

H1c. Readiness (i.e., technology and home readiness) is positively associated with empowerment.

Both directly and indirectly, empowerment is predicted to relate to well-being outcomes (including intent to leave the organization, well-being, job satisfaction, and organizational commitment, see H2 and H3a–3c) because the nature of WFH requires supervision at a distance. WFH employees with higher levels of empowerment are predicted to perceive more amicable working conditions (Donovan, 2022; Kniffin, Narayanan, Anseel, et al., 2021). H2 and H3a–H3c are stated as follows:

H2. Empowerment is positively associated with well-being outcomes.

H3a. Empowerment mediates the relationship between support and well-being outcomes.

H3b. Empowerment mediates the relationship between neuroticism and well-being outcomes.

H3c. Empowerment mediates the relationship between readiness and well-being outcomes.

The within-participant contextual effect summarizing relative perceptions pertaining to the move into WFH conditions was anticipated to result in negative effects on empowerment and well-being (see H4). This is because of perceptions of increased levels of general stress, overwork, and overload relative to those perceived prior to the pandemic. In support of these predictions, several authors have reported findings suggestive of the general possibility that the pandemic increased levels of stress (Blustein et al., 2022; Rudolph et al., 2021; Slaughter et al., 2021; Venkatesh et al., 2021). The move into WFH was predicted to increase employee turnover intentions (intent to leave) because of the creation of a generally more stressful and less desirable work environment resulting from pandemic lockdowns. Increases in intent to leave are taken as an indication of decreasing well-being, and thus H4 is stated in general terms as follows:

H4. The sudden shift into mandatory WFH conditions is negatively associated with empowerment and well-being outcomes.

2. Method

2.1. Participants

Table 2 displays demographic information relevant to our sample ($N = 337$, mean participant age = 39.82, SD = 9.61). Most participants held management or professional (around 37 %) and education or research roles (31 %). They had worked at their organization for a median of 4 years (interquartile range, IQR = 6 years), and had operated in their industry for a median of 11 years (IQR = 14 years) either in the public (49 %) or private (43 %) sector. Our sample tended towards education to bachelor's degree level or above, with the majority identifying as White (81 %) women (76 %) residing in Britain (84 %) and working within an organization (96 %).

Table 2
Sample demographic characteristics.

Characteristic/subgroup	Frequency	%
Occupation		
Management, professional	124	36.80
Administration	41	12.17
Education, research	106	31.45
Other	66	19.58
Organizational sector		
Public	166	49.26
Private	144	42.73
Other	27	8.01
Highest level of education		
PhD	29	8.61
Master's degree	99	29.38
Postgraduate honor's degree	16	4.75
Postgraduate diploma	23	6.82
Bachelor's degree	80	23.74
Completed high school	26	7.72
Other	64	18.99
Gender		
Other/prefer not to say	1	0.30
Woman	256	75.96
Man	80	23.74
Country of residence		
Britain	283	83.98
Greater Europe	14	4.15
USA	7	2.08
South or East Asia	6	1.78
Other	27	8.01
Ethnicity		
Black	9	2.67
White	274	81.31
East Asian	9	2.67
South Asian	15	4.45
Mixed	16	4.75
Other	14	4.15

Given the focus of our study, a main criterion for participation included being required to WFH due to lockdown conditions. Thus, at the time they were surveyed, all participants reported WFH because of government or employer guidelines pertaining to the COVID-19 pandemic. Prior to the pandemic, participants reported working a median of zero days (IQR = 1 day) per week from home. In contrast, during the pandemic, participants reported working a median of 5 (IQR = zero) days per week from home. This suggests a sudden and stark change in the work context for participants before versus during the pandemic. Participants reported a median of 2 dependents (e.g., children, people with disabilities) present in their WFH environment (IQR = 1 dependent). Where relevant, participants reported spending a median of 4 h per workday (IQR = 4 h) providing care for dependents. As is common in organizational studies, ours was a non-probability sample involving the dissemination of an online survey link. Thus, we were unable to estimate a response rate because information on the total available population relevant to our study was unavailable.

2.2. Measures

Fig. 1 shows study variables categorized as outcomes, antecedent predictors, and a mediator. In addition, two group-level factors were estimated for the model. These include a within-participants factor representing relative perceptions prior to and within the move to WFH and a between-groups factor representing job complexity. Operational definitions for each of these indicators are provided below. A 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree) was applied to all measures unless otherwise stated.

2.3. Well-being-related outcomes

2.3.1. Intent to leave

Intent to leave the organization was indicated on the 4-item *turnover intentions* measure (example item = "I am thinking about leaving this organization") from Kelloway et al. (1999), who estimated coefficients alpha (α) ranging from 0.92 to 0.93, which exceed normally accepted criteria (e.g., 0.70 and above, see Lance et al., 2006).

2.3.2. Well-being

Well-being was indicated on 6 items based on the negative affect adjectives provided in the Van Katwyk et al. (2000) measure of *job-related affective well-being*. Specifically, respondents were asked to rate the extent to which their job made them feel *frustrated*, *angry*, *hassled*, *annoyed*, *miserable*, and *stressed* on a scale ranging from 1 (never) to 6 (always). Variations on the Van Katwyk et al. scale are widely applied in the research literature and have been associated with high internal consistency estimates (e.g., $\alpha \geq 0.86$, see Kampf et al., 2020). To aid interpretation, we reverse-scored responses on this measure such that higher values = greater perceived well-being.

2.3.3. Job satisfaction

Job satisfaction was assessed with the 4-item Thompson and Phua (2012) *brief index of affective job satisfaction* (example item = "I feel fairly well satisfied with my job"). Thompson and Phua reported acceptable α estimates for their scale (≥0.81).

2.3.4. Organizational commitment

Organizational commitment was indicated on the 6-item (example item = "I really felt as if this organization's problem were my own") revision of the affective commitment scale (Allen & Meyer, 1990; Meyer & Allen, 1997). This scale is widely used in organizational research and Meyer et al. (2002) reported a mean meta-analytic reliability estimate for the scale at 0.82.

2.4. Antecedent predictors: support, neuroticism, and readiness

2.4.1. Perceived organizational support

Perceived organizational support was indicated on 5 items (example item = "The organization really cares about my well-being") from the 36-item measure documented in Eisenberger et al. (1986). Eisenberger et al. estimated α for the full scale at 0.97 and at 0.93 for a short version of the scale. Alternative short versions of the scale, in frequent use since its development, have returned similar reliability estimates (e.g., ≥0.93, see Garcia et al., 2021).

2.4.2. Managerial and collegial support

The format for items indicating managerial and collegial support was adapted from O'Driscoll et al. (2004). Participants rated their perceptions on a 5-point scale (ranging from 1 = *never* to 5 = *all of the time*) about the extent to which they received (a) helpful information or advice, (b) sympathetic understanding and concern, (c) clear and helpful feedback, and (d) practical assistance from their manager and their colleague. In their original use of this format to indicate collegial and family support, O'Driscoll et al. reported α estimates ranging from 0.89 to 0.91.

2.4.3. Neuroticism

Neuroticism was indicated on the instrument detailed in Donnellan et al. (2006, example item = "I have frequent mood swings"). Respondents were required to rate how accurate each of 4 statements were for them personally on a 5-point scale ranging from 1 = *very inaccurate* to 5 = *very accurate*. Donnellan et al. reported α estimates for this scale ranging from 0.68 to 0.70.

2.4.4. Technology readiness

Technology readiness perceptions were indicated on the 4-item technology *insecurity* subscale (example item = "Too much technology distracts people to a point that is harmful") from the *national technology readiness survey* in Parasuraman and Colby (2015). The authors reported an α of 0.70 for this instrument.

2.4.5. Home readiness

The Chartered Institute for Personnel and Development (CIPD) in the United Kingdom produced a staff survey on the perceived readiness of the home environment for work in response to the pandemic (Chartered Institute of Personnel and Development, 2020). We based our 4-item measure on this survey (example item = "I believe my home environment is generally suitable for work"). While no reliability estimates were available for this measure, we estimated α in the present study (which met the usual criteria, see our Results section).

2.5. Mediator: empowerment

2.5.1. Empowerment

Empowerment was indicated on the 12-item psychological empowerment scale from Spreitzer (1995). Spreitzer's measure includes four dimensions reflecting perceptions of *meaning* (e.g., "The work I do is very important to me"), *competence* (e.g., "I am confident about my ability to do my job"), *self-determination* (e.g., "I have significant autonomy in determining how I do my job"), and *impact* (e.g., "My impact on what happens in my department is large"). Spreitzer (p. 1444) states that the "four dimensions are argued to combine additively to create an overall construct of psychological empowerment", which was the focus of our study. Spreitzer reported α estimates for the overall empowerment construct ranging from 0.62 to 0.72.

2.6. Procedure

Participation in this study was based strictly on voluntary responses via a survey link that was disseminated to groups on LinkedIn and professional networks. Participation was facilitated online via the Qualtrics survey platform. At the time the survey was conducted (June 2020 through February 2021), lockdowns were applied internationally in response to the COVID-19 pandemic. Although variability in levels of lockdown were observed in different countries over this period, WFH was required of all study participants at the time we conducted our survey. This was likely a function of the level of lockdown enforced in the territory relevant to our respondents. On this point, the majority of our respondents were from Great Britain (around 84 %, see Table 2), where a series of government-enforced lockdowns took place between March 2020 and March 2021 (Institute for Government, 2023). Around 40 % of our sample had not previously worked from home and around 36 % worked from home between 1 and 3 days per week prior to the pandemic. The remaining ≈24 % had, prior to the pandemic, worked from home ≥4 days per week. Thus, our sample represents a mix of participants who were likely inexperienced and experienced at WFH. We did not collect data on the precise nature of support that participants received from their organizations during lockdown because this may have led to interpretational challenges regarding meaningful comparisons between different types of organization. However, we did collect data on perceptions of organizational and other types of support. These perceptions form a key component of the main analyses in our study.

To gauge relative perceptions, participants were required to consider two contexts and repeated their responses to each measure described above in relation to each context. This approach was not intended or anticipated to invoke complete memories of pre-lockdown conditions. Recollections are subject to multiple, potentially contradictory biases, including (a) confirmation bias (Sharot & Yonelinas, 2008), where current beliefs and attitudes influence those recalled; and (b) mood congruence (Bower, 1981), involving the tendency to recall information congruent with an individual's current mood. Rather, our intent was to estimate current, within-lockdown perceptions relative to current pre-lockdown perceptions. It is these relative perceptions that are of value in the present study because they are relevant to the reflective interpretation of the current context brought on by the pandemic-related critical event (as consistent with EST, see Morgeson et al., 2015).

Relating to the first context, respondents were invited to consider the period prior to mandatory WFH conditions and to respond to each item with their current pre-lockdown perceptions. Relating to the second context, respondents were invited to respond again to each item, but this time with their perceptions while in mandatory WFH conditions. These relative pre- and during-lockdown perceptions constituted the within-participants factor that was applied in our multilevel model described below.

As a proxy for and to offer a degree of statistical control over job complexity (see Ganzach & Pazy, 2001), occupation type was included as a between-participants factor. This was particularly relevant to our evaluation of empowerment, which is potentially dependent on job complexity. The four-group classification for occupations shown in Table 2 was used for this purpose, which covers a range of job-related levels from entry- to management-level.

2.7. Analyses

We tested a three-level model, including levels for individual participants, pre- and post-lockdown perceptions nested in participants, and participants nested in occupations. A dummy variable was used to test the effect of relative perceptions resulting from moving into WFH conditions (i.e., pre- versus post-lockdown) and specified interactions with all other study variables to evaluate if the relationships in our model changed when moving into mandatory WFH conditions. All parameters were tested using Bayesian estimation via the brms R package (version 2.17.7, Bürkner, 2017, 2018). All other statistics were estimated with R (R Core Team, 2022),

Table 3
Pre-lockdown perceptions – descriptive statistics and correlations for study variables.

#	Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11
1.	Org support	3.40	0.79	**0.90**										
2.	Mngr support	3.38	0.92	0.52***	**0.92**									
3.	Col support	3.66	0.81	0.39***	0.59***	**0.91**								
4.	Neuroticism	2.90	0.88	−0.09	0.11*	<0.01	**0.75**							
5.	Tech ready	2.79	0.85	−0.04	−0.07	−0.04	0.16**	**0.72**						
6.	Home ready	3.48	0.88	0.13*	−0.06	−0.05	−0.23***	−0.25***	**0.75**					
7.	Empowerment	3.81	0.57	0.29***	0.09	0.14*	−0.27***	−0.03	0.19***	**0.85**				
8.	Intent to leave	2.49	1.16	−0.36***	−0.23***	−0.17**	0.11	0.12*	−0.05	−0.29***	**0.94**			
9.	Well-being	2.92	0.85	0.35***	0.20***	0.12*	−0.33***	−0.13	0.11*	0.22***	−0.45***	**0.89**		
10.	Job sat	3.78	0.76	0.35***	0.16**	0.23***	−0.21***	0.01	0.08	0.59***	−0.47***	−0.36***	**0.93**	
11.	Org comit	3.23	0.80	0.54***	0.29***	0.28***	−0.10	0.05	0.07	0.41***	−0.51***	−0.29***	0.49***	**0.84**

Note. Stars indicate where credible intervals did not include zero at the * 95 %, ** 99 %, and *** 99.9 % level of confidence. Org = organizational, Mngr = manager, Col = colleague, Tech ready = technology readiness, Home ready = home readiness, Job sat = job satisfaction, Org commit = organizational commitment. Coefficients alpha estimates for each measure appear in bold along the diagonal. All variables were framed in the context of pre-lockdown recollections except for neuroticism, which was presented as a personality trait.

Table 4
During-lockdown perceptions – descriptive statistics and correlations for study variables.

#	Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11
1.	Org support	3.41	0.98	**0.93**										
2.	Mngr support	3.26	1.04	0.61***	**0.94**									
3.	Col support	3.66	0.81	0.27***	0.44***	**0.91**								
4.	Neuroticism	2.90	0.88	−0.09	0.05	<0.01	**0.75**							
5.	Tech ready	2.59	0.94	−0.09	−0.19***	−0.02	0.11*	**0.78**						
6.	Home ready	3.77	0.75	0.35***	0.26***	0.05	−0.20***	−0.33***	**0.73**					
7.	Empowerment	3.73	0.66	0.41***	0.25***	0.14*	−0.22***	−0.12*	0.33***	**0.88**				
8.	Intent to leave	2.58	1.26	−0.52***	−0.40***	−0.19***	0.08	0.15**	−0.23***	−0.43***	**0.96**			
9.	Well-being	3.04	1.04	0.41***	0.27***	0.05	−0.37***	−0.20***	0.34***	0.37***	0.44***	**0.92**		
10.	Job satisfaction	3.41	0.98	0.48***	0.35***	0.13*	−0.21***	−0.22***	0.43***	0.67***	−0.58***	−0.56***	**0.95**	
11.	Org commit	3.07	0.92	0.63***	0.41***	0.24***	−0.09	−0.09	0.24***	0.41***	−0.60***	−0.34***	0.53	**0.87**

Note. Stars indicate where credible intervals did not include zero at the * 95 %, ** 99 %, and *** 99.9 % level of confidence. Org = organizational, Mngr = manager, Col = colleague, Tech ready = technology readiness, Home ready = home readiness, Org commit = organizational commitment. Coefficients alpha estimates for each measure appear in bold along the diagonal. All variables were framed in the context of post-lockdown perceptions except for neuroticism, which was presented as a personality trait.

Table 5
Direct effects for Bayesian multilevel model for during relative to pre-lockdown perceptions.

Predictors	Empowerment			Intent to leave			Well-being			Job satisfaction			Org commitment		
	β	LB	UB	β	LB	UB	β	LB	UB	β	LB	UB	β	LB	UB
Intercept	<−0.01	−0.57	0.51	2.51***	2.26	2.76	4.08***	3.90	4.28	3.73***	3.56	3.89	3.19***	3.00	3.36
During-Pre	−0.16***	−0.25	−0.07	0.06	−0.06	0.17	−0.13**	−0.22	−0.04	−0.32***	−0.39	−0.24	−0.11***	−0.18	−0.04
Org support	0.20***	0.10	0.31	−0.34***	−0.44	−0.23	0.21***	0.13	0.29	0.14***	0.08	0.21	0.36***	0.30	0.43
Mngr support	0.07	−0.02	0.16	−0.08	−0.21	0.05	0.10*	0.01	0.18	0.04	−0.03	0.11	0.02	−0.04	0.09
Col support	0.04	−0.04	0.12	0.07	−0.03	0.17	−0.04	−0.11	0.04	0.03	−0.03	0.09	<0.01	−0.06	0.06
Neuroticism	−0.18***	−0.27	−0.09	0.01	−0.09	0.12	−0.27***	−0.35	−0.19	−0.04	−0.11	0.02	−0.01	−0.08	0.06
Tech readiness	<0.01	−0.07	0.08	0.09	<0.01	0.18	−0.06	−0.13	0.01	0.04	−0.03	0.09	0.08*	0.01	0.14
Home readiness	0.12**	0.05	0.19	0.03	−0.05	0.12	−0.04	−0.11	0.03	−0.03	−0.09	0.04	<0.01	−0.05	0.05
Empowerment				−0.30***	−0.39	−0.21	0.16***	0.09	0.23	0.47***	0.42	0.53	0.19***	0.14	0.25
During-Pre ×															
Home ready							0.17***	0.08	0.27	0.20***	0.12	0.29			
Tech ready										−0.12**	−0.20	−0.04	−0.09**	−0.15	−0.02
Org support	0.11*	0.02	0.21												
During-Pre SD	0.69	0.62	0.76	0.78	0.70	0.87	0.61	0.54	0.68	0.43	0.38	0.49	0.56	0.50	0.61
Occupation SD	0.43	0.12	1.40	0.15	<0.01	0.67	0.12	<0.01	0.53	0.11	<0.01	0.45	0.12	<0.01	0.51
ICC	0.14			0.02			0.04			0.06			0.03		
Residual SD	0.56	0.52	0.60	0.69	0.64	0.74	0.54	0.50	0.58	0.47	0.43	0.51	0.38	0.36	0.41
R^2	0.20	0.15	0.26	0.25	0.20	0.30	0.30	0.24	0.35	0.52	0.48	0.55	0.35	0.30	0.40

Note. During-Pre = during relative to pre-lockdown perceptions, Org support = perceived organizational support, Mngr support = perceived managerial support, Col support = perceived collegial support, Tech readiness = technological readiness, Home readiness = home readiness, Org commitment = organizational commitment. × = interactions. Stars indicate where credible intervals contain * 95 %, ** 99 %, and *** 99.9 % of posterior values. Occupation = occupational group, During-Pre SD = During-Pre intercept SD, Occupation SD = Occupation intercept SD, ICC = intraclass correlation indicated for occupational subgroups relevant to each outcome. LB and UB = lower and upper-bound estimates, respectively, for credible intervals. β, LB, and UB are presented as unstandardized parameter estimates.

Table 6
Indirect effects via empowerment for Bayesian multilevel model.

Predictors via empowerment	Intent to leave			Well-being			Job satisfaction			Org commitment		
	β	LB	UB	β	LB	UB	β	LB	UB	β	LB	UB
Org support	−0.06***	−0.10	−0.03	0.03***	0.01	0.06	0.10***	0.05	0.15	0.04***	0.02	0.06
Mngr support	−0.02	−0.05	0.01	0.01	<0.01	0.03	0.03	−0.01	0.08	0.01	<0.01	0.03
Col support	−0.01	−0.04	0.01	0.01	−0.01	0.02	0.02	−0.02	0.06	0.01	−0.01	0.02
Neuroticism	0.05***	0.03	0.09	−0.03***	−0.05	−0.01	−0.09***	−0.13	−0.04	−0.03***	−0.06	−0.02
Tech readiness	<0.01	−0.02	0.02	<0.01	−0.01	0.01	<0.01	−0.03	0.04	<0.01	−0.01	0.02
Home readiness	−0.03**	−0.06	−0.01	0.02**	0.01	0.03	0.05**	0.02	0.09	0.02**	0.01	0.04

Note. Stars indicate where credible intervals contain * 95 %, ** 99 %, and *** 99.9 % of posterior values. Org support = organizational support, Mng support = manager support, Col support = colleague support, Tech readiness = technological readiness, Org commitment = organizational commitment. LB and UB = lower and upper-bound estimates, respectively, for credible intervals. β, LB, and UB are presented as unstandardized parameter estimates. Each β indicates an indirect effect via empowerment (e.g., Org support to Intent to leave β = −0.06, which indicates that β = −0.06 is the effect for the indirect path from Org support to Intent to leave via empowerment).

with plots via the ggplot2 package (Wickham, 2016). We specified weakly informative priors, thus providing sufficient information to regularize the model without steering the results away from reasonable parameter values. For all regression coefficients and model intercepts, we used normal prior distributions with a mean of 0 and a standard deviation of 5. For all model errors relating to the three different levels in our study design, we used half-Student-*t* distributions with 3 degrees of freedom, a mean of 0, and a scale of 2.5. We ran the MCMC (Markov chain Monte Carlo) analysis with four simulation chains and 2000 iterations (1000 for warm-up, 1000 for sampling). The analysis met recommended critera for convergence, with effective sample sizes above 1000 and potential scale reduction factors below 1.01 for all model parameters (see Vehtari et al., 2021).

3. Results

3.1. Descriptive statistics and correlations

Tables 3 and 4 show descriptive statistics, internal consistency estimates, and bivariate correlations between study variables for pre-lockdown perceptions and during-lockdown perceptions respectively. All measures used in our study returned internal consistency estimates that met or exceeded the ≥0.70 criterion for α commonly adopted in the social sciences (see Lance et al., 2006), with values ranging from 0.72 to 0.96.

Regarding correlations relating to pre-lockdown perceptions in Table 3, relationships of note were observed between most outcomes, antecedent predictors, and the empowerment mediator with expected directionality (see Table 1). Exceptions included technological and home readiness, for which pre-lockdown outcome relations were mostly small or negligible. For during-lockdown perceptions in Table 4, correlations were, again, observed between most outcomes, antecedent predictors, and the empowerment mediator. A key difference was that relative to pre-lockdown perceptions, stronger relationships were observed between technological and home readiness with well-being outcomes for during-lockdown perceptions ($r \leq |0.43|$, $p < .001$). Nevertheless, numerous bivariate correlations were observed between presumed predictors across Tables 3 and 4, suggesting the potential for conflation and thus the requirement for a multivariate perspective.

3.2. Multilevel direct effects

Table 5 shows direct effects for the Bayesian multilevel model, incorporating perceived pre- and post-lockdown and occupational group factors. Model fit was estimated as meeting criteria for acceptability according to Bayesian R^2 values (see Gelman et al., 2019) for each predicted variable, which ranged from 0.20 to 0.52. Intraclass correlations for occupational subgroups in Table 5 ranged from 0.02 to 0.14, suggesting that partialling this factor assisted in mitigating potential bias in our results (e.g., see Geiser, 2013, p. 200).

To aid interpretation, parameter estimates shown in Table 5 correspond with the conceptual model graphically represented in Fig. 1. All predictors in Table 5, including the empowerment mediator, are displayed in the left-hand column. All outcomes, including the empowerment mediator, are displayed along the top of the table. Shown in Table 5 are effects pertaining to the within-participants pre- versus during-lockdown relative perceptions factor (labelled During-Pre). A negative sign here indicates that as participants moved into WFH conditions, a negative relationship was observed with each relevant variable (and vice versa for positive effects).

We note where each hypothesized relationship was supported or unsupported in Table 1. On direct effects related to empowerment (see Fig. 1 and H1a–H1c in Table 1), Table 5 suggests that, as expected, organizational support related to empowerment (β = 0.20, 95 % CI = [0.10, 0.31], H1a). However, neither manager nor colleague support returned significant results. As hypothesized, neuroticism (β = −0.18, 95 % CI = [−0.27, −0.09], H1b) and home readiness (β = 0.12, 95 % CI = [0.05, 0.19], H1c) related to empowerment. The effect for technological readiness was, however, nonsignificant. Empowerment related in the expected direction with all outcomes (H2), including intent to leave (β = −0.30, 95 % CI = [−0.39,-0.21]), job satisfaction (β = 0.47, 95 % CI = [0.42, 0.53]), organizational commitment (β = 0.19, 95 % CI = [0.14, 0.25]), and well-being (β = 0.16, 95 % CI = [0.09, 0.23]).

Within-participant results in Table 5 (see H4, Table 1) suggest that, as expected, moving into WFH because of lockdown reduced levels of job satisfaction (β = −0.32, 95 % CI = [−0.39, −0.24]), well-being (β = −0.13, 95 % CI = [−0.22, −0.04]), and organizational commitment (β = −0.11, 95 % CI = [−0.18, −0.04]). However, intentions to leave the organization were found to be unaffected by the move into lockdown and returned a near zero and non-significant effect (β = 0.06, *ns*).

3.3. Multilevel indirect effects

Table 6 shows indirect effects via the empowerment mediator (see Fig. 1 and H3a–H3c in Table 1). Our indirect effects followed similar patterns to direct effects observed in this study. Significant effects for organizational support via empowerment (see Table 6, H3a in Table 1), were observed for job satisfaction (β = 0.10, 95 % CI = [0.05, 0.15]), intent to leave (β = −0.06, 95 % CI = [−0.10, −0.03]), organizational commitment (β = 0.04, 95 % CI = [0.02, 0.06]), and well-being (β = 0.03, 95 % CI = [0.01, 0.06]). There were no significant indirect relationships with any of the outcomes for either manager or colleague support perceptions. Neuroticism (H3b) was indirectly related to all outcomes, including job satisfaction (β = −0.09, 95 % CI = [−0.13, −0.04]), intent to leave (β = 0.05, 95 % CI = [0.03, 0.09]), organizational commitment (β = −0.03, 95 % CI = [−0.06, −0.02]), and well-being (β = −0.03, 95 % CI = [−0.05, −0.01]). Home readiness (H3c) was also associated with indirect relationships across all outcomes via empowerment with significant effects for job satisfaction (β = 0.05, 95 % CI = [0.02, 0.09]), intent to leave (β = −0.03, 95 % CI = [−0.06, −0.01]), organizational commitment (β = 0.02, 95 % CI = [0.01, 0.04]), and well-being (β = 0.02, 95 % CI = [0.01, 0.03]). However, technological readiness did not return any significant indirect effects.

3.4. Interactions between study variables

The sudden move into WFH raised the possibility of numerous interactions between predictors, outcomes, and recalled pre- versus during-lockdown conditions. Testing these interactions allows an evaluation of whether relationships between predictors and outcomes were consistent across pre- and during lockdown perceptions. In the interests of clarity and brevity, we only report effects where at least 95 % of posterior values lay within credible intervals for each estimated interaction. Where this criterion was met, we report the relevant effect and provide a visual representation for predictors and outcomes split by recalled pre- and during-lockdown perceptions.

Table 5 includes reference to interactions that met the criterion for credible intervals outlined above and Fig. 2 shows visualizations

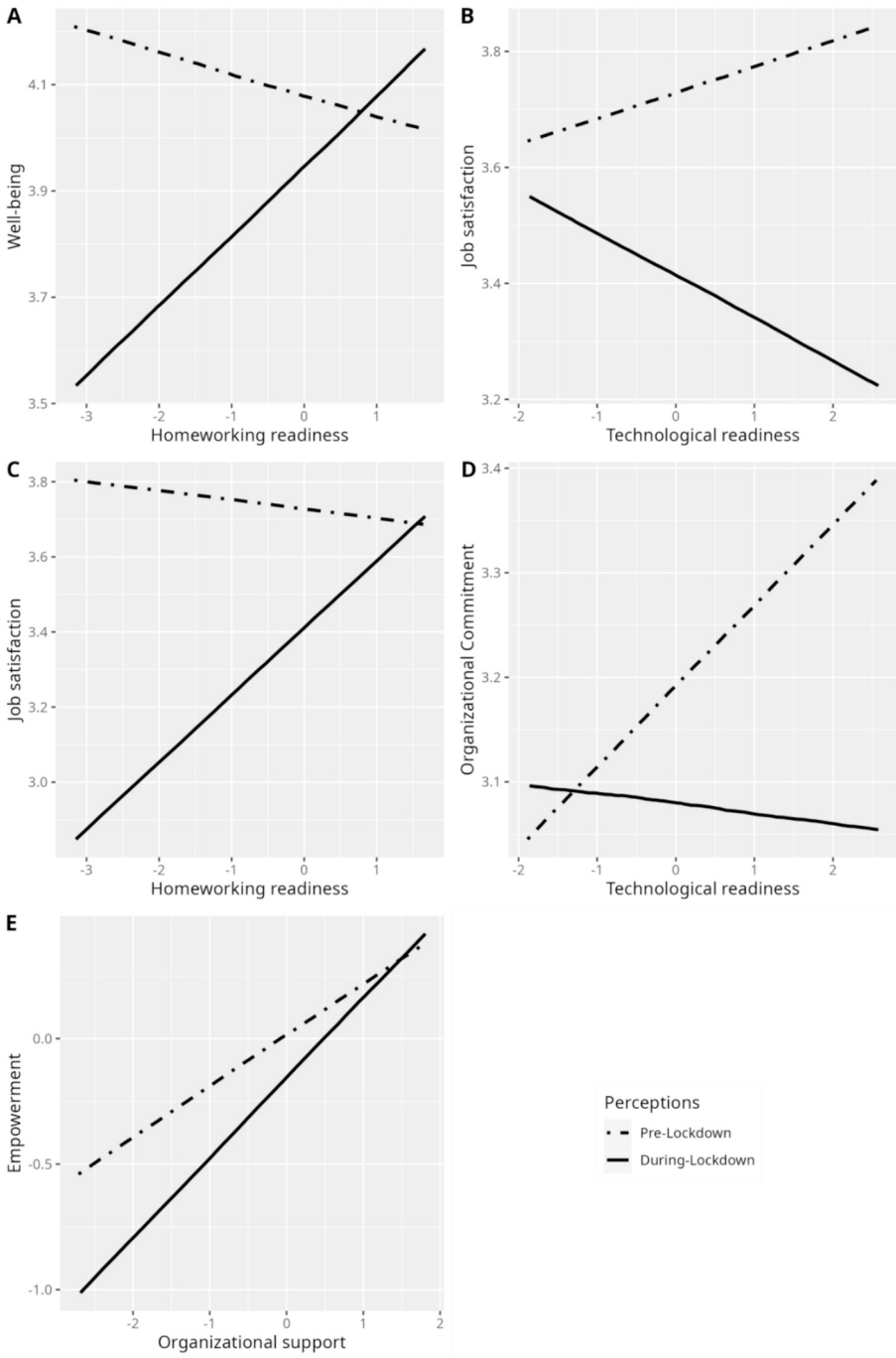

Fig. 2. Interactions for during- relative to pre-lockdown perceptions.

for these interactions. In Fig. 2A, a negative perceived pre-lockdown relationship was observed between home-working readiness and well-being. However, the reverse was true for during-lockdown perceptions. In Fig. 2B, a positive relationship was observed between technological readiness and job satisfaction pre-lockdown. However, this relationship reversed during lockdown. Fig. 2C suggests a slight negative relationship between home readiness and job satisfaction, which changed to a clear positive relationship during lockdown. Fig. 2D suggests a clear positive relationship between technological readiness and organizational commitment pre-lockdown. However, this changed to a slight negative relationship during lockdown. In Fig. 2E, although the direction of the relationship was the same across perceptions, the positive relationship between organizational support and empowerment strengthened within during-lockdown perceptions compared to pre-lockdown perceptions.

4. Discussion

We took a sensemaking approach to advance theory and research on how current context perceptions, relative to previous context perceptions of well-being are affected by a sudden and potentially unsettling shift to WFH. Our findings suggest that a sudden contextual change, although often downplayed or disregarded in the literature (Shirmohammadi et al., 2023; Zheng et al., 2015), has the potential to alter relative well-being perceptions. As a theoretical basis for our aims, we adapted and combined individual-level attitudinal components of PWT (Duffy et al., 2016; Duffy et al., 2022) with an acknowledgement of contextual critical events (i.e., the shift to WFH) via EST (Morgeson et al., 2015; Venkatesh et al., 2021). This synthesis of theoretical perspectives (see Fig. 1) allows for the prediction of well-being outcomes via PWT while incorporating the effect of contextual events including, but not limited to, those associated with the pandemic. Hypothesized relationships between variables in our model (see Table 1) were informed by suggestions from our developments and adaptations of PWT, EST, and with reference to research on WFH practices, including those prompted by the pandemic (Allan & Blustein, 2022; Allen et al., 2015; Camacho & Barrios, 2022; Donovan, 2022; Grelle & Popp, 2021; Rudolph et al., 2021; Venkatesh et al., 2021).

The results of our study clarify the relationship between contextual EST critical events and attitudinal perceptions (see H4). When moving into lockdown, relative perceptions of all our well-being indicators, except for intent to leave the organization, shifted in a negative direction (see Table 5). This included relative perceptions of job satisfaction, well-being, and empowerment. These findings suggest that the change in context to WFH related negatively to well-being perceptions from multiple perspectives. They moreover shed light on the importance of acknowledging contextual factors in the study of well-being (in response to concerns raised by Shirmohammadi et al., 2023), particularly those that involve a rapid, unanticipated contextual change.

Regarding direct effects predicted by our model (see Tables 1 and 5, and Fig. 1), our results consistently suggested that organizational support (positively, H1a), neuroticism (negatively, H1b), and home readiness (positively, H1c) were associated with empowerment. Empowerment was, in turn, predictive of all well-being-related outcomes (H2), including intent to leave (negatively), and well-being, job satisfaction, and organizational commitment (all positively). This suggests that, with respect to direct effects, support was evident for 70 % of the hypothesized relationships in this study. The direct effects that were not supported involved perceived manager and colleague support (H1a) and technological readiness (H1c), and their prediction of empowerment perceptions. Thus, while organizational support perceptions related to empowerment, our results suggest that managerial and collegial support were not involved in this outcome. Moreover, while home readiness was related to the development of empowerment perceptions, technological readiness was not.

The pattern of relationships we observed for indirect effects via empowerment were consistent with those that we observed for direct effects. Organizational support, neuroticism, and home readiness were found to indirectly relate to all well-being outcomes (H3a, H3b, and H3c). As with the direct effects we observed, neither manager support, collegial support, nor technological readiness indirectly predicted well-being-relevant outcomes. This suggests that around half of the hypothesized indirect relationships were supported in our model.

In the next section, we discuss novel contributions relating to our adaptation of PWT within the context of an EST critical event (i.e., the contextual shift to WFH) with a focus on employee well-being. We discuss our findings as they relate to theorized antecedent predictors (support, neuroticism, readiness), an empowerment mediator, and well-being outcomes.

4.1. Organizational support

We predicted that support perceptions would play a critical role in the context of an EST critical event such as a move to WFH (see Fig. 1). We included perceived social support as an antecedent predictor from three perspectives: that from the organization, immediate manager, and colleagues, as adapted from the perceived social support element of PWT. As can be observed in Tables 5 and 6, organizational support related to all the outcomes in our study. Previous findings have linked managerial and collegial support with well-being-relevant outcomes (Cole et al., 2006; Šmite et al., 2023). However, our findings suggest that in mandatory WFH conditions, organizational support was the sole support-related predictor of both empowerment and well-being outcomes via empowerment. This provides evidence that, unlike relationships involving managers and colleagues, organizational policies tend to have a direct bearing on work perceptions (Golden, 2006) that remain highly relevant even in the face of an impactful contextual change.

Our findings suggest that perceptions of organizational support have important implications for WFH. In the context of a sudden move to WFH, expectations are likely to shift around how organizational support manifests. Prior to the pandemic, fewer employees had first-hand experience of the productivity and work-life-balance benefits that can be accessed from WFH (Bailey & Kurland, 2002). Since the pandemic, positive perceptions have been reported for WFH, particularly from professionals (Ipsen et al., 2021), who represent a sizable proportion of our sample. Many professionals now report they would rather seek alternative employment than

return full-time to an office (Borrero et al., 2021). Consequently, if employees perceive that WFH enhances their performance and work-life experience, then offering WFH could be seen as an essential characteristic of a supportive, empowering organization. Evidence in the present study suggests that to maintain positive work perceptions, organizations could benefit from fostering empowerment in employees who WFH (see Tables 5 and 6).

If, as several researchers have indicated, the future of work is likely to retain elements of WFH (Antonacopoulou & Georgiadou, 2021; Couch et al., 2021), then our suggestion is that models of work perceptions should consider organizational support as an essential predictor of work attitudes (also see Wood et al., 2022) that are relevant to contextual changes (e.g., enforced WFH). Organizations might thus consider how they can better communicate their support of employees through challenging circumstances, given that we found relationships with organizational support, empowerment, and well-being outcomes (see Table 5).

4.2. Neuroticism

PWT suggests proactive personality as a component of its antecedent predictor set (Duffy et al., 2016; Thompson, 2005). In studies involving personality as it pertains to WFH, researchers have tended to concentrate on conscientiousness (e.g., Donovan, 2022; Venkatesh et al., 2021). In contrast, we included neuroticism in our study because we predicted, in keeping with EST, that the shift to WFH would intensify feelings of anxiety. Moreover, previous research findings suggest a relationship between neuroticism and well-being outcomes (including work strain, stress, exhaustion, and disengagement, Anicich et al., 2020; Cieslak et al., 2007; Tai & Liu, 2007).

We found evidence that neuroticism negatively predicted empowerment perceptions (H1b) and all well-being-related outcomes via empowerment (H3b). It is not anticipated that relationships involving personality characteristics can be altered by organizations. Nonetheless, it is helpful to learn about the background factors that might constrain the development of employee empowerment and well-being when faced with a transition to WFH conditions. This information could be used to develop theory regarding the importance of the relationship between neuroticism and well-being via empowerment. It could moreover help to identify individuals who would benefit from additional support when WFH.

The negative relationship we observed between neuroticism and well-being outcomes has been found in other, non WFH contexts (e.g., Vitterso & Nilsen, 2002). However, the relationship between neuroticism and empowerment or to well-being outcomes via empowerment is, to our knowledge, under- or unexplored in organizational research. In the context of WFH, our findings suggest that neuroticism potentially limits the development of empowerment. This has implications for the role of empowerment as a mediator of other effects in our model, as we outline below.

4.3. Home readiness

In response to the sudden move to WFH, the readiness of one's home for work has been raised as a key consideration in research relating to the pandemic context (Kniffin, Narayanan, Anseel, et al., 2021). Rudolph et al. (2021) presented several factors that might limit the suitability of home for work during a move to WFH, including adequate space and constraints around childcare. Similar issues have been raised in the wider literature on teleworking in circumstances prior to the pandemic (Kossek et al., 2006). We found support for our hypothesized relationship between perceptions of home readiness for WFH and empowerment perceptions (H1c). This suggests that home readiness might assist in fostering conditions under which employees feel empowered while in WFH conditions. Home readiness for work was not included in the original conception of PWT. However, several authors have suggested that it could play a role in critical events leading to a sudden shift to WFH (Camacho & Barrios, 2022; Donovan, 2022; Grelle & Popp, 2021). Our findings provide empirical support for these suggestions, both in terms of direct effects with empowerment and with indirect well-being-related outcomes via empowerment.

4.4. Direct and indirect effects via empowerment

Empowerment was theorized as our central mediator (see Fig. 1) and our adaptation of PWT decent work perceptions as impacted by a shift to the WFH context. Tables 1, 5, and 6 suggest that empowerment was implicated in numerous direct and indirect relationships hypothesized in our model (see Table 1). Regarding direct effects (H2), empowerment consistently related to all outcomes shown in Fig. 1, including a negative association with intent to leave and positive associations with well-being, job satisfaction, and organizational commitment (see estimates in Table 5).

Donovan (2022) suggested that the move into mandatory WFH conditions might have led managers to over-monitor employee behavior, leading to lowered levels of empowerment. Our study provides empirical support for this contention, with a negative association observed between empowerment and the move into lockdown. Our results offer suggestions about the implications of such lowered levels of empowerment (see H2). In particular, increased levels of empowerment reduced intentions to leave and increased levels of job satisfaction.

Not only was empowerment involved in direct effects, but it was also implicated in several indirect relationships with well-being outcomes. Table 6 shows estimates for the indirect effects via empowerment, which are represented graphically in Fig. 1. The results for our analyses regarding indirect effects were relevant to enhancing well-being via empowerment as a function of organizational support (H3a), neuroticism (H3b), and home readiness (H3b).

Some of the indirect relationships we observed via empowerment suggested a degree of nuance. We found that neuroticism was associated with indirect relationships via empowerment with all well-being outcomes (see Tables 1 and 6, H3b). Home readiness

showed evidence for indirect relationships with every well-being outcome (Tables 1 and 6, H3c). The complex relationships we observed generally involving empowerment offer suggestions about the centrality of this construct to attitudes in WFH conditions and the importance of fostering empowerment perceptions for employee well-being in the WFH environment.

4.5. Interactions

To offer further insights into how the contextual move to WFH (i.e., the EST critical event) correlated with relative perceptions, we reported interactions where at least 95 % of posterior values lay within credible intervals (see Fig. 2 and Table 5). Fig. 2 (A and C) suggests that for pre-lockdown perceptions, readiness of one's home for work was negatively associated with well-being and job satisfaction. This finding is in keeping with research on stress related to work-home boundary concerns, for example boundary management or boundary crossing (Kossek et al., 2006). However, within during-lockdown perceptions, this relationship reversed, with home readiness for work acting as an adaptive mechanism for well-being during WFH conditions. Moreover, the relationship between organizational support and empowerment strengthened for within WFH perceptions (Fig. 2E). These findings suggest that relationships involving well-being in previous research can change in the context of a critical event, such as a sudden move to WFH.

The interactions we observed involving technological readiness raise further novel contributions to knowledge about the influence of context. We did not find evidence for direct or indirect relationships between technological readiness and well-being outcomes. However, our analysis of interactions suggests nuanced effects associated with this predictor. Within pre-lockdown perceptions, technological readiness related positively to both job satisfaction and organizational commitment (Fig. 2B and D). In during-WFH perceptions, this pattern reversed, and negative relationships were observed with job satisfaction and organizational commitment. We suggest two possible explanations for this effect. First, this may indicate limitations associated with technology available at home versus at work. For example, an employee may be adept with technology and could have access to technology in their office that is preferable to that at home (Rudolph et al., 2021). Second, those who are adept with technology might be compelled to support those less confident with technology in WFH conditions and could thus become overloaded with support requests. This may be compounded by general workforce reductions, leading to work intensification and reduced satisfaction in more technically confident employees (Adisa et al., 2021; Paskvan & Kubicek, 2017).

4.6. Implications for practice

In the context of enforced WFH, perceptions of organizational support and empowerment consistently predicted, directly or indirectly, work outcomes in our study, including those related to satisfaction, commitment, well-being, and intentions to leave the organization. Of encouragement to practitioners when faced with critical incidents such as a sudden move to WFH conditions, organizational support and empowerment can potentially be fostered and developed through managerial action. If the future of work involves continued or increased levels of WFH, our findings about fostering organizational support and empowerment may be relevant to the employment context well beyond the circumstances associated with the pandemic. In the context of a move to WFH, our findings suggest that employers need to convey genuine support through considerate, clear, and open communication aimed at fostering a sense of trust, encouragement, recognition, and appreciation (also see Rudolph et al., 2021; Yogalakshmi & Suganthi, 2020). Our findings further suggest, in keeping with Donovan (2022), that in a shift to WFH, employers need to empower workers to do their jobs without micromanagement, surveillance, and undue pressure. Such factors can serve only to disempower workers, possibly leaving them with nontrivially lowered perceptions of well-being.

We observed an interaction between technology readiness perceptions and the move into mandatory WFH. Specifically, our findings suggest that those adept with technology might become less job satisfied and organizationally committed when WFH. Our practical suggestion in this respect is that if employees are expected to WFH, then organizations should ensure that they have access to the same level of technology at home as they do at work. Moreover, organizations would likely benefit from ensuring that those who are confident in their use of technology do not become overloaded with support requests. Setting up appropriate technical support could perhaps assist in reducing the load on employees in this position.

We found a positive association between home readiness and empowerment. Our results suggest that empowerment was an important predictor of all well-being-related outcomes included in our study. It is therefore in the interests of organizations expecting employees to WFH to facilitate conditions for empowerment and suitability of one's home for work. This may involve discussing with an employee the availability of support oriented towards adapting their home environment to work requirements. It may further, and perhaps even more critically, involve the development of organizational policies that communicate a sense of trust that employees will perform effectively in a WFH setting (also see Donovan, 2022).

4.7. Limitations, and future directions

A limitation imposed on the design of our study was that we were not able to obtain perceptual data prior to the onset of mandatory WFH conditions. However, our intent is to present current, in-lockdown perceptions relative to current perceptions of pre-lockdown conditions. Such relative perceptions are of value to scenarios where employees experience contextual change as a function of a critical event. Relative perceptions are moreover found to be of value in other, related research studies of employee perceptions (e.g., Day, 1995; O'Brien, 2022).

Our sample comprised primarily White (81 %), British (84 %) participants who were educated to a bachelor's degree level or higher (66 %). Our results may not generalize beyond groups of this type, and we encourage researchers to test whether our results replicate

across different cultures, countries, and social groups.

A consideration specific to the WFH context relates to our measure of perceived home readiness. Home readiness perceptions became focal to research concerns because of the pandemic. We were unable to locate a measure of home readiness in the peer-reviewed literature and based ours on a survey published by the CIPD in the UK. Results from our study suggested acceptable internal consistency for this measure (coefficients α ranging from 0.73 to 0.75) and observed relationships with outcomes were in the expected direction (see Tables 5 and 6). Future research could possibly benefit from further examination into the psychometric properties of this construct.

We focused only on a portion of PWT relevant to individual perceptions. It is possible that an acknowledgement of societal effects might offer further enlightenment about work-related perceptions during the pandemic in future research. Other relevant effects might relate to familial support, financial concerns, and job retention. We found indirect evidence about job retention concerns in our study. In Table 5, it can be observed that empowerment, well-being, satisfaction, and organizational commitment shifted in a negative direction regarding relative perceptions about moving into mandatory WFH. However, intent to leave remained more-or-less unchanged. We suggest that the latter is possibly because participants were concerned about retaining employment during the pandemic due to restrictions on alternative options driven by weighty financial uncertainties.

Well-being perceptions, as influenced by critical-event contextual factors, represented a key focus in our study. In cases where concerns are raised about levels of well-being, one temptation may be for organizations to implement corporate initiatives aimed at increasing levels of perceived well-being. However, such approaches are potentially problematic because they imply that the development of well-being perceptions depends on employees rather than organizations. They moreover ignore the influence of social and contextual interactions (Murtola & Vallelly, 2022). We therefore suggest that organizations can make efforts to foster an environment conducive to well-being, but likely cannot and should not attempt to directly manipulate such perceptions.

We tested a single model based on background research relating to a synthesis of PWT and EST adapted to research in the context of mandatory WFH. For comparison, we tested other feasible configurations, including models where empowerment moderated relations between antecedent predictors with (a) the mediators organizational commitment and well-being where job satisfaction was the sole outcome, (b) the mediator job satisfaction where organizational commitment and well-being were outcomes, and (c) the mediator organizational commitment where job satisfaction and well-being were outcomes. None of these alternative models met criteria for acceptable fit.

4.8. Conclusions

Our research highlights the importance of acknowledging rapid, unanticipated changes in context in the study of well-being (see Shirmohammadi et al., 2023). The context in our study centered on a change in working conditions towards WFH. We could find no single theory that acknowledged both individual antecedents and moderators of well-being as well as the multilevel effects of a sudden change in context. To address this oversight in the literature, we combined aspects of PWT with EST to guide our prediction of well-being outcomes in the context of a move to WFH resulting from pandemic-related decisions (see Table 1 and Fig. 1).

The future of work is predicted to be influenced by events resulting from the pandemic, particularly regarding a higher frequency of WFH employees (Barrero et al., 2023). The organizational literature stands much to gain from learning about the impact of the pandemic on work perceptions. Our model suggests that the move to WFH generally decreased relative perceptions of well-being. Moreover, our model suggests that organizational support, neuroticism, and home readiness were predictors of multiple well-being-relevant outcomes via a central empowerment mediator. Our hope is that these findings will assist in refining and developing theoretical models of work relevant to perceptions of critical contextual events. Our suggestion for practice relating to WFH is that organizational support and empowerment are perceptions that leaders can and should foster in employees through managerial action. Our findings suggest that organizations should act to empower employees who WFH for the enhancement of well-being in an environment characterized by increasing complexity and virtuality (Shin, 2004).

CRediT authorship contribution statement

Duncan J.R. Jackson: Writing – review & editing, Writing – original draft, Methodology, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Amanda Jones:** Writing – review & editing, Writing – original draft, Methodology, Funding acquisition, Conceptualization. **George Michaelides:** Writing – review & editing, Writing – original draft, Methodology, Formal analysis, Data curation, Conceptualization. **Chris Dewberry:** Writing – review & editing, Writing – original draft, Methodology, Conceptualization.

Declaration of competing interest

No authors of this paper have conflicts of interest to disclose.

Data availability

Data will be made available on request.

References

Adisa, T. A., Ogbonnaya, C., & Adekoya, O. D. (2021). Remote working and employee engagement: A qualitative study of British workers during the pandemic. *Information Technology & People*. https://doi.org/10.1108/ITP-12-2020-0850. ahead-of-print.

Allan, B. A., & Blustein, D. L. (2022). Precarious work and workplace dignity during COVID-19: A longitudinal study. *Journal of Vocational Behavior, 136*, 1–13. https://doi.org/10.1016/j.jvb.2022.103739

Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology, 63*, 1–18. https://doi.org/10.1111/j.2044-8325.1990.tb00506.x

Allen, T. D., Golden, T. D., & Shockley, K. M. (2015). How effective is telecommuting? Assessing the status of our scientific findings. *Psychological Science in the Public Interest, 16*(2), 40–68. https://doi.org/10.1177/1529100615593273

Anderson, A. J., Kaplan, S. A., & Vega, R. P. (2015). The impact of telework on emotional experience: When, and for whom, does telework improve daily affective well-being? *European Journal of Work and Organizational Psychology, 24*(6), 882–897. https://doi.org/10.1080/1359432X.2014.966086

Anicich, E. M., Foulk, T. A., Osborne, M. R., Gale, J., & Schaerer, M. (2020). Getting back to the "new normal": Autonomy restoration during a global pandemic. *Journal of Applied Psychology, 105*(9), 931–943. https://doi.org/10.1037/apl0000655

Anseel, F., Beatty, A. S., Shen, W., Lievens, F., & Sackett, P. R. (2015). How are we doing after 30 years? A meta-analytic review of the antecedents and outcomes of feedback-seeking behavior. *Journal of Management, 41*(1), 318–348. https://doi.org/10.1177/0149206313484521

Antonacopoulou, E. P., & Georgiadou, A. (2021). Leading through social distancing: The future of work, corporations and leadership from home [Personnel Management & Selection & Training 3620]. *Gender, Work and Organization, 28*(2), 749–767. https://doi.org/10.1111/gwao.12533

Avolio, B. J., Zhu, W., Koh, W., & Bhatia, P. (2004). Transformational leadership and organizational commitment: Mediating role of psychological empowerment and moderating role of structural distance. *Journal of Organizational Behavior, 25*(8), 951–968. https://doi.org/10.1002/job.283

Bailey, D. E., & Kurland, N. B. (2002). A review of telework research: Findings, new directions and lessons for the study of modern work. *Journal of Organizational Behavior, 23*, 383–400. https://doi.org/10.1002/job.144

Barrero, J. M., Bloom, N., Buckman, S., & Davis, S. J. (2023). Survey of working arrangements and attitudes (SWAA) May 2023 updates. https://wfhresearch.com/wp-content/uploads/2023/05/WFHResearch_updates_May2023.pdf.

Blustein, D. L., Smith, C. M., Wu, X., Guarino, P. A., Joyner, E., Milo, L., & Bilodeau, D. C. (2022). "Like a tsunami coming in fast": A critical qualitative study of precarity and resistance during the pandemic. *Journal of Counseling Psychology, 69*(5), 565–577. https://doi.org/10.1037/cou0000615

Borrero, N., Yeh, C. J., Dela Cruz, G., & Collins, T. (2021). The COVID-19 pandemic and emerging cultural assets. *Equity and Excellence in Education, 1-14*. https://doi.org/10.1080/10665684.2021.1992603

Bower, G. H. (1981). Mood and memory. *American Psychologist, 36*(2), 129–148. https://doi.org/10.1037//0003-066x.36.2.129

Brown, A., & Leite, A. C. (2023). The effects of social and organizational connectedness on employee well-being and remote working experiences during the COVID-19 pandemic. *Journal of Applied Social Psychology, 53*(2), 134–152. https://doi.org/10.1111/jasp.12934

Bürkner, P. (2017). brms: An R package for Bayesian multilevel models using Stan. *Journal of Statistical Software, 80*(1), 1–28. https://doi.org/10.18637/jss.v080.i01

Bürkner, P. (2018). Advanced Bayesian multilevel modeling with the R package brms. *The R Journal, 10*(1), 395–411. https://doi.org/10.32614/RJ-2018-017

Camacho, S., & Barrios, A. (2022). Teleworking and technostress: Early consequences of a COVID-19 lockdown. *Cognition, Technology & Work, 24*(3), 441–457. https://doi.org/10.1007/s10111-022-00693-4

Carless, S. A. (2004). Does psychological empowerment mediate the relationship between psychological climate and job satisfaction? *Journal of Business and Psychology, 18*(4), 405–425. https://doi.org/10.1023/B:JOBU.0000028444.77080.c5

Chartered Institute of Personnel and Development. (2020). Staff survey: Preparing for homeworking or flexible working. https://www.cipd.co.uk/knowledge/fundamentals/relations/flexible-working/homeworking-questionnaire#gref.

Choi, S. (2020). Flexible work arrangements and employee retention: A longitudinal analysis of the federal workforces. *Public Personnel Management, 49*(3), 470–495. https://doi.org/10.1177/0091026019886340

Cieslak, R., Knoll, N., & Luszczynska, A. (2007). Reciprocal relations among job demands, job control, and social support are moderated by neuroticism: A cross-lagged analysis. *Journal of Vocational Behavior, 71*(1), 84–96. https://doi.org/10.1016/j.jvb.2007.03.001

Cole, M. S., Bruch, H., & Vogel, B. (2006). Emotion as mediators of the relations between perceived supervisor support and psychological hardiness on employee cynicism. *Journal of Organizational Behavior, 27*, 463–484. https://doi.org/10.1002/job.381

Couch, D. L., O'Sullivan, B., & Malatzky, C. (2021). What COVID-19 could mean for the future of "work from home": The provocations of three women in the academy. *Gender, Work and Organization, 28*(Suppl. 1), 266–275. https://doi.org/10.1111/gwao.12548

Day, N. E. (1995). Can performance raters be more accurate? Investigating the benefits of prior knowledge of performance dimensions. *Journal of Managerial Issues, 7*(3), 323–342.

De Menezes, L. M., & Kelliher, C. (2017). Flexible working, individual performance, and employee attitudes: Comparing formal and informal arrangements. *Human Resource Management, 56*(6), 1051–1070. https://doi.org/10.1002/hrm.21822

Demerouti, E. (2023). Effective employee strategies for remote working: An online self-training intervention. *Journal of Vocational Behavior, 142*, 1–17. https://doi.org/10.1016/j.jvb.2023.103857

Deschenes, A.-A. (2023). Professional isolation and pandemic teleworkers' satisfaction and commitment: The role of perceived organizational and supervisor support. *European Review of Applied Psychology, 73*(2), 1–12. https://doi.org/10.1016/j.erap.2022.100823

Donnellan, M. B., Oswald, F. L., Baird, B. M., & Lucas, R. E. (2006). The Mini-IPIP Scales: Tiny-yet-effective measures of the big five factors of personality. *Psychological Assessment, 18*, 192–203. https://doi.org/10.1637/1040-3590.8.2.192

Donovan, C. (2022). Examining employee engagement amid a crisis: Reactions to mandatory stay-at-home orders during the COVID-19 pandemic. *Psychology of Leaders and Leadership, 25*(2), 114–143. https://doi.org/10.1037/mgr0000127 (The Psychologist-Manager Journal).

Duffy, R. D., Blustein, D. L., Diemer, M. A., & Autin, K. L. (2016). The psychology of working theory. *Journal of Counseling Psychology, 63*(2), 127–148. https://doi.org/10.1037/cou0000140

Duffy, R. D., Kim, H. J., Allan, B. A., Prieto, C. G., & Perez, G. (2022). Structural predictors of underemployment during COVID-19 pandemic: A psychology of working perspective. *The Counseling Psychologist, 50*(4), 477–505. https://doi.org/10.1177/00110000221078819

Dwivedi, Y. K., Hughes, L., Kar, A. K., Baabdullah, A. M., Grover, P., Abbas, R., … Kruse, L. C.p. (2022). Climate change and COP26: Are digital technologies and information management part of the problem or the solution? An editorial reflection and call to action. *International Journal of Information Management, 63*, Article 102456.

Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology, 71*, 500–507. https://doi.org/10.1037/0021-9010.71.3.500

England, J. W., Duffy, R. D., Gensmer, N. P., Kim, H. J., Buyukgoze-Kavas, A., & Larson-Konar, D. M. (2020). Women attaining decent work: The important role of workplace climate in Psychology of Working Theory. *Journal of Counseling Psychology, 67*(2), 251–264. https://doi.org/10.1037/cou0000411

Eurofound and the International Labour Office. (2017). Working anytime, anywhere: The effects on the world of work. http://eurofound.link/ef1658.

Ganzach, Y., & Pazy, A. (2001). Within-occupation sources of variance in incumbent perception of job complexity. *Journal of Occupational and Organizational Psychology, 74*(1), 95–108. https://doi.org/10.1348/096317901167253 (Journal of Occupational Psychology).

Garcia, P. R. J. M., Amarnani, R. K., Bordia, P., & Restubog, S. L. D. (2021). When support is unwanted: The role of psychological contract type and perceived organizational support in predicting bridge employment intentions. *Journal of Vocational Behavior, 125*. https://doi.org/10.1016/j.jvb.2020.103525

Geiser, C. (2013). *Data analysis with Mplus [text]*. Guildford Press.

Gelman, A., Goodrich, B., Gabry, J., & Vehtari, A. (2019). R-squared for Bayesian regression models. *The American Statistician, 73*(3), 307–309. https://doi.org/10.1080/00031305.2018.1549100

George, T. J., Atwater, L. E., Maneethai, D., & Madera, J. M. (2022). Supporting the productivity and wellbeing of remote workers: Lessons from COVID-19. *Organizational Dynamics, 51*(2), 1–9. https://doi.org/10.1016/j.orgdyn.2021.100869

Golden, T. D. (2006). The role of relationships in understanding telecommuter satisfaction. *Journal of Organizational Behavior, 27*(3), 319–340. https://doi.org/10.1002/job.369

Golden, T. D., Veiga, J. F., & Dino, R. N. (2008). The impact of professional isolation on teleworker job performance and turnover intentions: Does time spent teleworking, interacting face-to-face, or having access to communication-enhancing technology matter? *Journal of Applied Psychology, 93*(6), 1412–1421. https://doi.org/10.1037/a0012722

Gong, Y., Wu, Y., Huang, P., Yan, X., & Luo, Z. (2020). Psychological empowerment and work engagement as mediating roles between trait emotional intelligence and job satisfaction. *Frontiers in Psychology, 11*. https://doi.org/10.3389/fpsyg.2020.00232

Gopalan, S. (2022). The importance of first impressions in a hybrid working era. *Strategic HR Review, 21*(5), 149–152. https://doi.org/10.1108/SHR-05-2022-0028

Graves, L. M., & Luciano, M. M. (2013). Self-determination at work: Understanding the role of leader-member exchange. *Motivation and Emotion, 37*(3), 518–536. https://doi.org/10.1007/s11031-012-9336-z

Grelle, D., & Popp, E. (2021). Considering the interaction of individual differences and remote work contexts. *Industrial and Organizational Psychology: Perspectives on Science and Practice, 14*(1–2), 244–247. https://doi.org/10.1017/iop.2021.51

Hargreaves, S., Rustage, K., Nellums, L. B., McAlpine, A., Pocock, N., Devakumar, D., … Zimmerman, C. (2019). Occupational health outcomes among international migrant workers: A systematic review and meta-analysis. *The Lancet Global Health, 7*(7), e872–e882. https://doi.org/10.1016/S2214-109X(19)30204-9

Institute for Government. (2023). Timeline of UK coronavirus lockdowns. March 2020 to March 2021 https://www.instituteforgovernment.org.uk/sites/default/files/timeline-lockdown-web.pdf.

Ipsen, C., van Veldhoven, M., Kirchner, K., & Hansen, J. P. (2021). Six key advantages and disadvantages of working from home in Europe during COVID-19. *International Journal of Environmental Research and Public Health, 18*(4). https://doi.org/10.3390/ijerph18041826

Johns, G. (2006). The essential impact of context on organizational behavior. *Academy of Management Review, 31*(2), 386–408. https://doi.org/10.5465/AMR.2006.20208687

Kampf, P. H., Hernández, A., & González-Romá, V. (2020). An ultra-short measure of positive and negative affect: The reduced affective well-being scale (RAWS). *Psychology: Organizations and Work Journal, 20*(4), 1257–1266. https://doi.org/10.17652/rpot/2020.4.10

Kelloway, E. K., Gottlieb, B. H., & Barham, L. (1999). The source, nature, and direction of work and family conflict: A longitudinal investigation. *Journal of Occupational Health Psychology, 4*(4), 337–346. https://doi.org/10.1037/1076-8998.4.4.337

Kniffin, K. M., Narayanan, J., Anseel, F., Antonakis, J., Ashford, S. P., Bakker, A. B., … Vugt, M. (2021). COVID-19 and the workplace: Implications, issues, and insights for future research and action. *American Psychologist, 76*(1), 63–77. https://doi.org/10.1037/amp0000716

Kniffin, K. M., Narayanan, J., & van Vugt, M. (2021). COVID-19 is a moderating variable with its own moderating factors. *Industrial and Organizational Psychology: Perspectives on Science and Practice, 14*(1–2), 149–151. https://doi.org/10.1017/iop.2021.38

Kossek, E. E., Lautsch, B. A., & Eaton, S. C. (2006). Telecommuting, control, and boundary management: Correlates of policy use and practice, job control, and work-family effectiveness. *Journal of Vocational Behavior, 68*(2), 347–367. https://doi.org/10.1016/j.jvb.2005.07.002

Lance, C. E., Butts, M. M., & Michels, L. C. (2006). The sources of four commonly reported cutoff criteria: What did they really say? *Organizational Research Methods, 9*, 202–220. https://doi.org/10.1177/1094428105284919

Lapierre, L. M., Van Steenbergen, E. F., Peeters, M. C. W., & Kluwer, E. S. (2016). Juggling work and family responsibilities when involuntarily working more from home: A multiwave study of financial sales professionals. *Journal of Organizational Behavior, 37*(6), 804–822. https://doi.org/10.1002/job.2075

Malinen, S., Hatton, T., Naswall, K., & Kuntz, J. (2019). Strategies to enhance employee well-being and organisational performance in a postcrisis environment: A case study. *Journal of Contingencies and Crisis Management, 27*(1), 79–86. https://doi.org/10.1111/1468-5973.12227

Matthews, R. A., Wayne, J. H., Smith, C., Casper, W. J., Wang, Y.-R., & Streit, J. (2022). Resign or carry-on? District and principal leadership as drivers of change in teacher turnover intentions during the COVID-19 crisis: A latent growth model examination. *Journal of Occupational and Organizational Psychology, 95*(3), 687–717. https://doi.org/10.1111/joop.12397

Maunder, R. G., Lancee, W. J., Balderson, K. E., Bennett, J. P., Borgundvaag, B., Evans, S., … Wasylenki, D. A. (2006). Long-term psychological and occupational effects of providing hospital healthcare during SARS outbreak. *Emerging Infectious Diseases, 12*(12), 1924–1932. https://doi.org/10.3201/eid1212.060584

Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace: Theory, research, and application*. Sage Publications, Inc.

Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior, 61*(1), 20–52. https://doi.org/10.1006/jvbe.2001.1842

Morgeson, F. P., Mitchell, T. R., & Liu, D. (2015). Event system theory: An event-oriented approach to the organizational sciences. *The Academy of Management Review, 40*(4), 515–537. https://doi.org/10.5465/amr.2012.0099

Moyce, S. C., & Schenker, M. (2018). Migrant workers and their occupational health and safety. *Annual Review of Public Health, 39*, 351–365. https://doi.org/10.1146/annurev-publhealth-040617-013714

Murtola, A.-M., & Vallelly, N. (2022). Who cares for wellbeing? Corporate wellness, social reproduction and the essential worker. *Organization, 30*(3), 510–527. https://doi.org/10.1177/13505084221131642

Musleh, A. (2022). Remote management: A temporary need or a future necessity? *European Journal of Business and Management Research, 7*(5), 1–5. https://doi.org/10.24018/ejbmr.2022.7.5.1531

Ninaus, K., Diehl, S., & Terlutter, R. (2021). Employee perceptions of information and communication technologies in work life, perceived burnout, job satisfaction and the role of work-family balance. *Journal of Business Research, 136*, 652–666. https://doi.org/10.1016/j.jbusres.2021.08.007

O'Brien, E. (2022). The "next" effect: When a better future worsens the present. *Social Psychological and Personality Science, 13*(2), 456–465. https://doi.org/10.1177/19485506211034972

O'Driscoll, M. P., Brough, P., & Kalliath, T. J. (2004). Work/family conflict, psychological well-being, satisfaction and social support: A longitudinal study in New Zealand. *Equal Opportunities International, 23*(1/2), 36–56. https://doi.org/10.1108/02610150410787846

Office for National Statistics. (2023). Characteristics of homeworkers, Great Britain: September 2022 to January 2023. https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/characteristicsofhomeworkersgreatbritain/september2022tojanuary2023#main-points.

Overbey, J. A. (2013). Telecommuter intent to leave. *Leadership & Organization Development Journal, 34*(7), 680–699. https://doi.org/10.1108/LODJ-01-2012-0004

Page, K. M., & Vella-Brodrick, D. A. (2009). The 'what', 'why' and 'how' of employee well-being: A new model. *Social Indicators Research, 90*(3), 441–458. https://doi.org/10.1007/s11205-008-9270-3

Parasuraman, A., & Colby, C. L. (2015). An updated and streamlined Technology Readiness Index: TRI 2.0. *Journal of Service Research, 18*(1), 59–74. https://doi.org/10.1177/1094670514539730

Paskvan, M., & Kubicek, B. (2017). The intensification of work. In *Job demands in a changing world of work: Impact on workers' health and performance and implications for research and practice* (pp. 25–43). https://doi.org/10.1007/978-3-319-54678-0_3

R Core Team. (2022). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. https://www.R-project.org.

Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology, 87*(4), 698–714. https://doi.org/10.1037/0021-9010.87.4.698

Ribeiro, M. A., Cardoso, P. M., Duarte, M. E., Machado, B., Figueiredo, P. M., & Foncatti, G. O. S. (2022). Perception of decent work and the future among low educated youths in Brazil and Portugal [Educational/Vocational Counseling & Student Services 3580]. *Emerging Adulthood, 10*(1), 10–18. https://doi.org/10.1177/2167696820925935

Rousseau, D. M., & Fried, Y. (2001). Location, location, location: Contextualizing organizational research [editorial]. *Journal of Organizational Behavior, 22*(1), 1–13. https://doi.org/10.1002/job.78

Rudolph, C. W., Allan, B., Clark, M., Hertel, G., Hirschi, A., Kunze, F., & Zacher, H. (2021). Pandemics: Implications for research and practice in industrial and organizational psychology. *Industrial and Organizational Psychology: Perspectives on Science and Practice, 14*(1–2), 1–35. https://doi.org/10.1017/iop.2020.48

Sharot, T., & Yonelinas, A. P. (2008). Differential time-dependent effects of emotion on recollective experience and memory for contextual information. *Cognition, 106*(1), 538–547. https://doi.org/10.1016/j.cognition.2007.03.002

Shin, Y. (2004). A person-environment fit model for virtual organizations. *Journal of Management, 30*(5), 725–743. https://doi.org/10.1016/j.jm.2004.03.002

Shirmohammadi, M., Beigi, M., & Richardson, J. (2023). Subjective well-being among blue-collar immigrant employees: A systematic literature review. *Human Resource Management Review, 33*(1), 1–15. https://doi.org/10.1016/j.hrmr.2022.100914

Slaughter, J. E., Gabriel, A. S., Ganster, M. L., Vaziri, H., & MacGowan, R. L. (2021). Getting worse or getting better? Understanding the antecedents and consequences of emotion profile transitions during COVID-19-induced organizational crisis. *Journal of Applied Psychology, 106*(8), 1118–1136. https://doi.org/10.1037/apl0000947

Šmite, D., Moe, N. B., Klotins, E., & Gonzalez-Huerta, J. (2023). From forced working-from-home to voluntary working-from-anywhere: Two revolutions in telework. *Journal of Systems and Software, 195*, Article 111509. https://doi.org/10.1016/j.jss.2022.111509

Snyder, J. S., Schwiedrzik, C. M., Vitela, A. D., & Melloni, L. (2015). How previous experience shapes perception in different sensory modalities. *Frontiers in Human Neuroscience, 9*, 594. https://doi.org/10.3389/fnhum.2015.00594

Sonnentag, S. (2015). Dynamics of well-being. *Annual Review of Organizational Psychology and Organizational Behavior, 2*, 261–293. https://doi.org/10.1146/annurev-orgpsych-032414-111347

Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal, 38*(5), 1442–1465. https://doi.org/10.5465/256865

Sterud, T., Tynes, T., Mehlum, I. S., Veiersted, K. B., Bergbom, B., Airila, A., … Flyvholm, M. A. (2018). A systematic review of working conditions and occupational health among immigrants in Europe and Canada. *BMC Public Health, 18*(1), 770. https://doi.org/10.1186/s12889-018-5703-3

Tai, W.-T., & Liu, S.-C. (2007). An investigation of the influences of job autonomy and neuroticism on job stressor-strain relations. *Social Behavior and Personality: An International Journal, 35*(8), 1007–1020. https://doi.org/10.2224/sbp.2007.35.8.1007

Thompson, E. R., & Phua, F. T. T. (2012). A brief index of affective job satisfaction. *Group & Organization Management, 37*, 275–307. https://doi.org/10.1177/1059601111434201

Thompson, J. A. (2005). Proactive personality and job performance: A social capital perspective. *Journal of Applied Psychology, 90*(5), 1011–1017. https://doi.org/10.1037/0021-9010.90.5.1011

Van Katwyk, P. T., Fox, S., Spector, P. E., & Kelloway, E. K. (2000). Using the job-related affective well-being scale (JAWS) to investigate affective responses to work stressors. *Journal of Occupational Health Psychology, 5*(2), 219–230. https://doi.org/10.1037/1076-8998.5.2.219

Vehtari, A., Gelman, A., Simpson, D., Carpenter, B., & Bürkner, P. C. (2021). Rank-normalization, folding, and localization: An improved R for assessing convergence of MCMC (with Discussion). *Bayesian Analysis, 16*(2), 667–718. https://doi.org/10.1214/20-BA1221

Venkatesh, V., Ganster, D. C., Schuetz, S. W., & Sykes, T. A. (2021). Risks and rewards of conscientiousness during the COVID-19 pandemic. *Journal of Applied Psychology, 106*(5), 643–656. https://doi.org/10.1037/apl0000919

Vitterso, J., & Nilsen, F. (2002). The conceptual and relational structure of subjective well-being, neuroticism, and extraversion: Once again, neuroticism is the important predictor of happiness. *Social Indicators Research, 57*(1), 89–118. https://doi.org/10.1023/A:1013831602280

Wang, W., Albert, L., & Sun, Q. (2020). Employee isolation and telecommuter organizational commitment. *Employee Relations, 42*(3), 609–625. https://doi.org/10.1108/ER-06-2019-0246

Warr, P. (1990). The measurement of well-being and other aspects of mental health. *Journal of Occupational Psychology, 63*, 193–210. https://doi.org/10.1111/j.2044-8325.1990.tb00521.x

Warr, P. (1999). Well-being and the workplace. In *Well-being: The foundations of hedonic psychology* (pp. 392–412). Russell Sage Foundation.

Wheatley, D. (2017). Employee satisfaction and use of flexible working arrangements. *Work, Employment and Society, 31*(4), 567–585. https://doi.org/10.1177/0950017016631447

Wickham, H. (2016). *ggplot2: Elegant graphics for data analysis*. Springer-Verlag.

Wood, S., Michaelides, G., Inceoglu, I., Niven, K., Kelleher, A., Hurren, E., & Daniels, K. (2022). Satisfaction with one's job and working at home in the COVID-19 pandemic: A two-wave study. *Applied Psychology, n/a*(n/a). https://doi.org/10.1111/apps.12440

Yang, D., Kelly, E. L., Kubzansky, L. D., & Berkman, L. (2023). Working from home and worker well-being: New evidence from Germany. *ILR Review, 76*(3), 504–531. https://doi.org/10.1177/00197939221148716

Yogalakshmi, J. A., & Suganthi, L. (2020). Impact of perceived organizational support and psychological empowerment on affective commitment: Mediation role of individual career self-management. *Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues, 39*(3), 885–899. https://doi.org/10.1007/s12144-018-9799-5

Zapf, D. (2002). Emotion work and psychological well-being: A review of the literature and some conceptual considerations. *Human Resource Management Review, 12*(2), 237–268. https://doi.org/10.1016/S1053-4822%2802%2900048-7

Zheng, X., Nieberle, K. W., Braun, S., & Schyns, B. (2023). Is someone looking over my shoulder? An investigation into supervisor monitoring variability, subordinates' daily felt trust, and well-being. *Journal of Organizational Behavior, 44*(5), 818–837. https://doi.org/10.1002/job.2699

Zheng, X., Zhu, W., Zhao, H., & Zhang, C. (2015). Employee well-being in organizations: Theoretical model, scale development, and cross-cultural validation. *Journal of Organizational Behavior, 36*(5), 621–644. https://doi.org/10.1002/job.1990