

Article

The impact of new ways of working on organizations and employees: A Systematic Review of Literature

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Abstract: A new research stream emerged in the 2000s dedicated to flexible work arrangements in public and private organizations, called “new ways of working” (NWW). This article aims to examine NWW from both a theoretical and empirical perspective, focusing on outcomes of this new concept and the debate between “mutual gains” vs. “conflicting outcomes.” Through a literature review, it examines this research field’s innovation and its rather vague theoretical foundations. Findings demonstrate that NWW definitions are diverse and somewhat imprecise, leading to fragmented research designs and findings; the research stream’s theoretical foundations should be better addressed. Findings also highlight the current lack of empirical data, which therefore does not allow any real conclusions on NWW’s effects on employees’ and organizations’ well-being and performance.

Keywords: new ways of working, flexible work arrangements, activity-based offices, flexitime, telework, knowledge workers

1. Introduction

During the past 30 years, a wave of technological, economical, societal, demographic, and environmental changes has occurred, which has pushed public and private organizations to find solutions to remain competitive and efficient. With various concepts emerging in the international literature on the new world of work (Wessels et al., 2019), this article aims to shed light on new ways of working (NWW¹), a human resources (HR) approach introduced into many organizations worldwide and facilitated by mobile devices and internet facilities (Blok et al., 2011; De Leede & Nijland, 2017; Bijl, 2011). NWW’s most common definition is that it constitutes forms of work that allow workers to choose when and where they work using information and communication technologies (ICT) to be available anywhere, anytime (Nijp, Beckers, van de Voorde, Geurts, & Kompier, 2016; ten Brummelhuis, Bakker, Hetland, & Keulemans, 2012).

NWW is seen as a viable answer to incompatibilities between people’s professional and personal lives stemming from major societal issues and have been boosted by current COVID-19 pandemic issues. The shift toward an increasingly globalized economy has forced organizations to be innovative, responsive, flexible, and more efficient and effective (Palvalin, 2017; Taskin, Ajzen, & Donis, 2017; Van Steenberghe et al., 2017). NWW can also positively address professional life challenges like women’s labor market access, work–life balance and work well-being, and young workers’ (millennials) new expectations (Brandl et al., 2019; van Meel, 2011).

Finally, the *green imperative* has also played a role in NWW implementation because NWW potentially diminish the amount of carbon monoxide produced via commuter

¹ In this article, we use NWW and NWoW interchangeably for “new ways of working.”

reduction, which has been clearly demonstrated during the COVID-19 crisis (Ruostela et al., 2015; Taskin et al., 2017).²

Because of NWW's rapid increase in organizations, its relevance and real outcomes on organizations *and* employees are important to determine. As NWW practices promise to give employees better control over their work time and more autonomy, what are the real effects of such HR practices for employee well-being and performance? As stated by Cvenkel (2020, p. 68): "Well-being has become one of the most important issues of the twenty-first century world of work—a challenge not just for individuals, in terms of their mental and physical health, but for employers and governments who have started to assess its social and financial implications."

Regarding NWW-related academic research, there is only one literature review focusing on NWW's psychological outcomes (Kotera & Correa Vione, 2020); it includes seven studies assessing mental demands like workload autonomy, blurred work–family psychological borders, fatigue, and work engagement. However, the results are inconclusive, and the authors do not investigate whether NWW is mutually beneficial to organizations and employees or contribute to contradictory effects. Thus, through a systematic literature review, this article aims to answer the following research question:

Does empirical evidence exist regarding either mutual gains from NWW (i.e., positive effects for both organizations and their employees) or contradictory/conflicting effects (i.e., beneficial organizational effects but negative employee effects or vice versa)?

This question is essential for further academic research as well as management practices, because it remains unclear how NWW can be implemented to optimize both performance and well-being.

- to discuss NWW-related empirical outcomes thus far using the *mutual gains–conflicting outcomes* approach;
- to suggest further research avenues by highlighting definitional and theoretical issues that should be clarified when analyzing NWW's effects on employees and organizational outcomes.

Therefore, the main objectives of this article are the following:

The article is divided into four sections. The first explains the theoretical perspective adopted in this literature review. The second is devoted to methodological aspects. The third presents the main empirical results. The final section discusses these results and propose new avenues for future research.

2. A mutual gains–conflicting outcomes theoretical approach

NWW is clearly a field where practice precedes theory. The NWW concept originated in the Netherlands (Jemine et al., 2019; Van der Voordt, 2003; Vos & Van der Voordt, 2001) and began to be used in the 1990s (Kingma, 2019). Academics contribute from various fields, including organizational psychology (Peters et al., 2014), management (Assarлинд et al., 2013), HR management (Peters et al., 2014), and architecture (Gorgievski et al., 2010).

According to Blok et al. (2016), "there is no clear theory which provides a foundation for NWW and the scientific proof for the effectiveness of NWW so far is very limited" (p. 157). Following Nijp et al. (2016, p. 616), neither the "sunny" nor "gloomy" perspective on NWW have been clearly confirmed. Like other HR practices, NWW may generate positive outcomes like increased motivation, job involvement, task autonomy, and better work–life balance, which in turn positively impact employees' performance. However, NWW may also decrease job motivation by generating a feeling of isolation, lack of social interaction and organizational support, and uncontrolled working time, which can lead to stress and burnout. Consequently, our literature review uses a mutual gains vs.

² Air quality as measured by carbon monoxide has notably improved during the COVID-19 crisis (please see the referenced research for more details).

conflicting outcomes approach, commonly used in HR-management literature (Ho & Kuvaas, 2020; Peccei & Voorde, 2019; Voorde, Paauwe, & Veldhoven, 2012).

2.1. The mutual gains approach

The mutual gains perspective constitutes an optimistic view of HR management practices' impact on organizational performance and employees' well-being (Guest, 2011; Ogbonnaya & Messersmith, 2019). This mutual positive effect is supported by several theories. Social exchange theory (Blau, 1964; Colquitt et al., 2014; Lawler, Thye, & Yoon, 2008) explains that employees will perceive good HR management practices as their organizations' efforts to support them, which is associated with employees' willingness to become more committed to their organization, leading to higher overall organizational performance. Moreover, according to the ability-motivation-opportunity (AMO) model (Appelbaum et al., 2000), adopting certain HR management practices will enable employee development of skills and abilities, increase their opportunities for organizational participation, and also increase their motivation and commitment level, thus positively impacting organizational performance.

2.2 The conflicting outcomes perspective

A more pessimistic version of the relationships between management practices, employee well-being, and organizational performance exists: the conflicting outcomes perspective. This approach criticizes the so-called unitarist employee perspective, which indicates that anything beneficial for the employee benefits the employer and vice versa. (Boselie et al., 2009). Its basic argument is that pursuing organizational goals may negatively influence employees' well-being by increasing stress and fatigue and decreasing employees' control over their own activities (Peccei & Voorde, 2019). This argument has been frequently used in relation to high performance work systems, which promise a higher level of performance to the detriment of employees' well-being (Jensen & Van De Voorde, 2016; Spector, 2016).

The conflicting outcomes approach is based on the idea that organizational performance and employee well-being are parallel phenomena that may never meet (Boxall, Guthrie, & Paauwe, 2016; Boxall & Macky, 2016). Consequently, management practices can negatively impact employee well-being (by generating stress, burnout, or de-motivation) without impacting organizational performance, positively impact organizational performance without impacting employee well-being, or positively affect organizational performance while negatively affecting employee well-being. In this case, management practices constrain employees, leading them to redouble their efforts to achieve organizational goals. This critical perspective comes from labor process theory in particular (Goddard & Delaney, 2000; Ramsay, Scholarios, & Harley, 2000), stressing that organizations prioritize economic and financial profitability objectives, so management tools and practices, including HR management, are developed to pressure employees, leading to their deteriorating well-being.

The common thread running through our literature review is this confrontation of perspectives, mutual gains vs. conflicting outcomes, to identify whether empirical results currently exist to test these two perspectives.

3 Methodology

We conducted a systematic literature review between October and November 2019 using Web of Science, ScienceDirect, SAGE3, and Emerald. These databases were selected

³ For example, a SAGE search for "new ways of working" for the period 1993-2019 generated 590,421 results. After applying inclusion and exclusion criteria, we kept only two relevant articles.

to ensure a broad search across disciplines, including management, HR management, business, social sciences, and psychology. The search results were collated in Zotero.

The searched terms were chosen to identify articles that specifically address NWW in a work context. As NWW can also be a generic term used in various sectors, initial searches returned a high number of irrelevant articles. Therefore, we identified the most common keywords using additional search terms in our review: “new ways of working,” “NWW,” “NWOW,” and “NewWoW.” Only peer-reviewed English articles published from 1993 (when NWW was first mentioned) to 2019 were selected (Brunia, De Been, & van der Voordt, 2016; Kingma, 2019). Two researchers separately searched all databases, allowing a double check of articles; they then compared the selected articles and deleted duplicates. We retained only articles containing the words “new ways of working” in the title, abstract, or keywords, which restricted our review to articles related to NWW as a specific HR practice. Two researchers screened the bibliography of each selected article to find additional references to include in our literature review.

Through this process, we collected 100 references in our database, excluding 10 duplicates. Then, we defined inclusion and exclusion criteria to apply to the remaining 90 studies.

Included studies

- examined NWW practices as a bundle
- or referred explicitly to the notion of NWW but examined only one of its components, such as IT use, activity-based working, and schedule or place flexibility.

Excluded studies

- did not mention NWW and reported on only one practice, such as activity-based working, flexitime, or telework (this review focuses on NWW’s emergence as a concept and considers only articles that specifically refer to this),
- focused on self-employed workers only,
- used NWW (or other selected keywords) without referring to related scientific literature, such as using NWW in everyday language.

The final corpus comprised 21 articles. Figure 1 presents the PRISMA flow diagram.

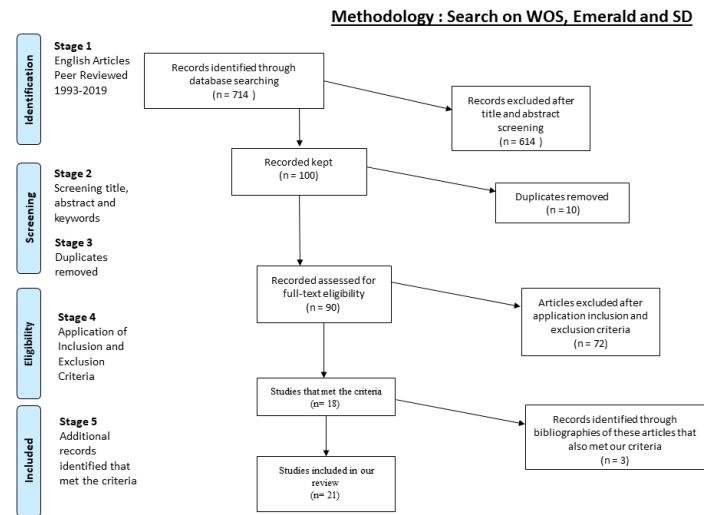


Figure 1. Literature review methodology

4 Results

4.1 Preliminary observations

Table 1 summarizes key information for all 21 articles regarding NWW-associated practices, theoretical framework, and performance- and well-being-related results.

First, we observed all articles were published after 2010 except for Van der Voordt (2003) and Vos and Van der Voordt (2001). Because NWW, to our knowledge, was first

used in a management context in the early 1990s, it is notable the concept spread to the academic field some 10 years afterward.

NWW-interested authors are from diverse disciplines, which makes comparison difficult but also means a richer, more robust corpus for analysis. Dutch scholars are dominant, having written all but three studies (Austrian [Brandl et al., 2019], Belgian [Jemine et al., 2019], and American [Ten Brummelhuis et al., 2012]). Consequently, NWW has been studied in Dutch organizations.

Theme diversity can be divided into three categories:

1. three conceptual articles focused on retracing NWW terminology's origins (Brandl et al., 2019; Jemine et al., 2019; Van Meel, 2011);
2. three empirical studies with a case study approach (Blok et al., 2012; De Bruyne & Beijer, 2015; Kingma, 2019);
3. empirical research on NWW outcomes, further subdivided into three subcategories;
 - five articles on NWW's impact on employees' outcomes, like work engagement or well-being (Gerards et al., 2018; Nijp et al., 2016; Peters et al., 2014; Ten Brummelhuis et al., 2012; Van Steenbergen et al., 2017);
 - six articles on NWW's impact on productivity or organizational outcomes (Laihonen et al., 2012; Palvalin, 2016, 2017; Palvalin et al., 2015; Ruostela et al., 2015; Schmoll & Süß, 2019);
 - five articles on one NWW component's effect, like activity-based working or aspects of private territory on concentration or employee satisfaction (Baek & Cha, 2019; Brunia et al., 2016; Gorgievski et al., 2010; Van der Voordt, 2003; Vos & Van der Voordt, 2001).

4.2 NWW definitions

Before analyzing NWW outcomes, the lack of coherence among the authors' definitions should be noted. Though NWW has been defined during the past two decades in many ways, the term is still used as an "umbrella term," and a comprehensive definition is still lacking. As shown in Table 1, authors who investigated NWW issues differ in their use of the terms "NWW," "flexible working," "flexible work practices" (Kingma, 2019), and "flexible work arrangements" (Blok et al., 2012; Brandl et al., 2019; Schmoll & Süß, 2019; Van Steenbergen et al., 2017). An examination of these definitions demonstrated their diversity, commonalities, and differences (see Appendix B for details regarding the different definitions).

As Ruostela et al. (2015) stated, NWW consists of "a set of approaches and a philosophy for questioning the dominant ways of organizing work practices" (p. 283), implicitly referring to "old ways of working," in other words, all employees working together in the same office at the same time. NWW concerns "working smarter, not harder" to achieve better communication among employees, improve creativity and innovation, share knowledge more efficiently, increase autonomy, and utilize office space more efficiently (Ruostela et al., 2015, p. 384).

The most common definition was the following: NWW allows workers to choose when and where they work while using ICT to be available anywhere and any time (Laihonen et al., 2012; Nijp et al., 2016; Ten Brummelhuis et al., 2012; Van Steenbergen et al., 2017). Authors agree unanimously on two components: anytime and anywhere and ICT availability. The former component, corresponding to spatial/temporal flexibility, enables employees to work independently with, for example, annualized hours or flexible schedules through teleworking, satellite offices, or mobile working. They may also use freely accessible workspaces, such as activity-based offices or non-territorial offices (Brunia, De Been, & Van der Voort, 2016). *The latter component provides free access to and use of organizational knowledge on tablets, smartphones, or computers so employees can easily contact and collaborate with colleagues and managers through videoconferences and chats.*

Authors have also linked NWW practices to autonomy (Palvalin, 2017; Schmoll & Süß, 2019; Van der Voordt, 2003; Van Meel, 2011). For example, Ten Brummelhuis et al. (2012) stated that “it is important to emphasize that the overarching theme of NWW is providing employees autonomy by giving them control over their work content, time, location and communication” (p. 383).

Authors have disagreed on the following, management-style elements. Some studies include “output management” style (Laihonen et al., 2012) in the NWW definition, whereas others do not (Nijp et al., 2016). The question then arises as to whether transactional management style (Gerards, de Grip, & Weustink, 2018; Jemine et al., 2019) is part of NWW or is a fundamental (pre-)condition for NWW. Others (Blok et al., 2012; Jemine et al., 2019) include trust-based management, despite other scholars considering these to be “conditions for success” rather than constituents of NWW. Moreover, the literature is divided on whether flexibility in working relations (Gerards et al., 2018) is part of NWW (Laihonen et al., 2012; Nijp et al., 2016; Ten Brummelhuis et al., 2012).

As we show below, these author discrepancies are at least partially due to an under-theorization of NWW. In the 21 reviewed articles, only eight anchor NWW in an existing theoretical framework (see Table 1), including the job demands-resources model (Gerards Ruud et al., 2018; Peters et al., 2014; Van Steenbergen et al., 2017); HR-management process model (Peters et al., 2014); economics of conventions (Brandl et al., 2019); sociology of translation (Jemine et al. 2019); Lefebvre’s theory on production of space (Kingma, 2019), and signaling theory (Schmoll & Süß, 2019).

4.3 NWW outcomes

This lack of a common definition directly affects the interpretation of empirical evidence using mutual gains vs. conflicting outcomes. The evidence regarding NWW practices’ outcomes illustrates three key points (Table 1). First, the selected studies analyzed different components of NWW practices, such as teleworking, flextime, and flexible workspaces or analyzed different bundles of these; for example Gerards et al. (2018) focused on different types of flexibility, including flexible working relations, and Van Steenbergen et al. (2017) included three NWW types while excluding flexible working relations. This makes comparison between studies difficult. Second, methodologically, many articles were single case studies from various organizational contexts, mostly in the Netherlands, which complicates generalization. Third, the studied outcomes differ among articles, falling predominantly into two categories: employees’ health/well-being and employees’ performance. Only one study focused on organizational performance.

Eight articles undertook empirical analysis. Employee well-being was measured using: job satisfaction, work engagement, absorption, work enjoyment, intrinsic work motivation, fatigue, exhaustion, and burnout. Six studies concern only well-being, finding NWW’s effects on employees’ well-being were not straightforward. Indeed, three studies found positive outcomes (Gerards Ruud et al., 2018; Peters et al., 2014; ten Brummelhuis et al., 2012), two found negative effects (Blok et al., 2012; Kingma, 2019), and one found no significant effects (Van Steenbergen et al., 2017). Thus, empirical research on NWW’s effects on well-being is still developing. Regarding employee performance, studies either found no or a negative effect of NWW (Nijp et al., 2016; Van der Voordt, 2003). Performance has been less studied than well-being, although NWW is supposed to positively influence many aspects of, at least, in-role performance.

Furthermore, interaction variables, like management style or trust, appeared to partially mediate relationships between NWW and employees’ outcomes, for example work engagement (Gerards et al. 2018). However, only three studies used interaction variables, although these have been proven to be of utmost importance in HR-management research (Ho & Kuvaas, 2020).

To summarize, NWW’s impact on employees’ outcomes has been found to be either neutral, one-sided positive or negative, and contradictory (only in two articles) according to the conflicting outcomes perspective.

Table 1. Variables in new ways of working (NWW) studies

Author(s)	Methodology	Theoretical framework	NWW facet(s)	Dependent variable(s)	Interaction variable(s)	Outcomes	Mutual gains/conflicting outcomes
Baek & Cha 2019	Two sets of experiments Trilateration-based BLE	-	Information and communication technology (ICT) Flexible workspace	-	-	-	-
Blok et al. 2012	Case study	-	Teleworking Flexible workspace Flexible working hours ICT	Work behavior Collaboration Employee satisfaction Knowledge-sharing	-	No changes on employees' satisfaction or collaboration Decrease in knowledge-sharing	"One-sided" study, focused only on employees' well-being No change in well-being
Brandl 2019	Ethnographic fiction science	Economics of convention	Flexibility Teleworking Flexible workspace Flexible working hours Flexibility in working relations	-	-	-	-
Brunia 2016	Questionnaire and interviews descriptive/explorative	-	Flexible workplaces	Employee satisfaction	-	Employees satisfaction linked to work environment's physical characteristics	-

Author(s)	Methodology	Theoretical framework	NWW facet(s)	Dependent variable(s)	Interaction variable(s)	Outcomes	Mutual gains/conflicting outcomes
Gerards et al. 2018	Survey data from representative panel of Dutch households collected by RMI	Job demands-resources	Time- and location-independent work Output management Access to organizational knowledge Flexibility in working relations Freely accessible open workplace	Work engagement	Workplace social interaction Transformational leadership	Output management positively affects work engagement Access to organizational knowledge fully mediated by interaction variables Flexible workplace positively affects work engagement, fully mediated by interaction variables	"One-sided" study, focused only on employees' well-being. Unilateral gain + well-being
Gorgievski 2010	Survey interviews with decision-makers, document analysis, personal observations	-	-	-	-	-	-
Jemine et al. 2019	Longitudinal qualitative study: interviews and observations	Institutional work and sociology of transition	Physical environment (especially based on space and buildings)	-	-	-	-
Kingma 2019	Case study with diverse sources. Longitudinal –before and after implementation	Production of space	Flexible Workspace Teleworking ICT	Employees' perceptions on NWW introduction	-	Difficulties for some employees to work without fixed workspace; disturbances from noise;	"One-sided" study, focused on employees' well-being. Unilateral well-being loss

Author(s)	Methodology	Theoretical framework	NWW facet(s)	Dependent variable(s)	Interaction variable(s)	Outcomes	Mutual gains/conflicting outcomes
						Decrease in work engagement and social cohesion	
Laihonen et al. 2012	Literature review	-	-	Knowledge worker productivity	-	-	-
Nijp et al. 2016	Comparison between reference and intervention group quasi-experimental design within large company	-	Flexible workspace Flexible working hours ICT	Control over work time and place; working hours; work location Work-nonwork balance; stress, fatigue, and general health In-role and extra-role performance Organizational commitment and job satisfaction	-	Employees work more hours at home, general working hours pattern remains the same, i.e. during weekdays and daytime no effect on work-non-work balance Non significant change on performance and health	No significant change on employees' outcomes. No mutual gains No well-being change No performance change
Palvalin & Vuolle 2016	Scale's development to measure knowledge workers' performance	-	Teleworking Flexible workplace ICT	Knowledge work performance	-	-	-
Palvalin et al. 2015	Scale's development to measure knowledge workers' performance	-	Teleworking Flexible workplace ICT	Knowledge work performance	-	-	-
Palvalin 2017	Scale's development to measure knowledge workers' performance	-	Teleworking Flexible workplace ICT	Knowledge work performance	-	-	-

Author(s)	Methodology	Theoretical framework	NWW facet(s)	Dependent variable(s)	Interaction variable(s)	Outcomes	Mutual gains/conflicting outcomes
Peters et al. 2014	Survey data	HRM-process model and JD-R	Employee empowerment, home-working, trust-based relationships	Absorption, work enjoyment, and intrinsic work motivation	-	Positive effects on employees' outcomes	"One-sided" study focused on employee well-being. Unilateral gain + well-being
Ruostela et al. 2015	Two case studies	-	Flexible work-space Flexible working hours ICT	Knowledge work productivity	-	Organizational performance Improvement	-
Schmoll 2019	Experimental study: paper-and-pencil survey randomized vignette-based experiment	Signaling theory	Flexible work-space Flexible working hours	-	-	Temporal flexibility and spatial flexibility positively affect organizational attraction	
Ten Brummelhuis et al. 2012	Five-day diary study: questionnaire in large telecom company	JD-R	Flexible work-space Flexible working hours ICT	Work engagement and exhaustion	Communication quality	NWW positively related to daily engagement and negatively to daily exhaustion	"One-sided" study focused on employees' perceptions of well-being. Unilateral gains and loss: + engagement - health
Van der Voordt 2003	-	-	Flexible work-space	Employee satisfaction Productivity	-	Decrease of productivity Mixed effect on employee satisfaction	Conflicting outcomes – gains and loss: - organizational performance (productivity) + well-being

Author(s)	Methodology	Theoretical framework	NWW facet(s)	Dependent variable(s)	Interaction variable(s)	Outcomes	Mutual gains/conflicting outcomes
van Meel 2011	Historical description based on literature, documents, handbooks, movies, etc.	-	-	-	-	-	-
Van Steenbergen et al. 2017	Three waves (one before and two after transition). Data collected via online surveys	JD-R	Flexible workspace Flexible working hours ICT	Work engagement Burnout	Job demands and job resources	Mixed effects on employees' outcomes Burnout and work engagement remained stable	"One-sided" on employee well-being. No significant change.
Vos & van der Voordt, 2001	-	-	Teleworking Flexible workspace	Satisfaction about NWW	-	-	-

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5 Discussion

As shown in Table 1, current research on NWW effects provides little useful information for supporting either the mutual gains or conflicting outcomes perspective. In our opinion, this is because of the theoretical base' weakness on which NWW research is based and a lack of systematic research design regarding NWW outcomes and interaction variables. In this section, we will discuss three main findings:

- the current under-theorization of NWW studies and this stream of research's real novelty;
- the lack of systematic thinking regarding outcomes and interaction variables;
- the lack of reflection on such practices' mutual gains or conflicting outcomes.

We link these different points to a query regarding current research gaps and potential new avenues.

5.1 Under-theorization of NWW and novelty

Thinking concerning NWW is nascent, which likely explains why our literature review contains few scientific articles. However, it is also striking the reviewed articles are oriented toward empirical or practical considerations (approximately 50%). Most authors' main concern was the development of tools and managerial advice for NWW implementation (Baek & Cha, 2019; Palvalin, 2017). Our literature review demonstrates NWW research is not based on very structured theoretical foundations. There is significant fragmentation of theoretical references, which complicates comparison and knowledge accumulation, starting with the fact that no clear definition is accepted among scholars. NWW definitions from the 21 selected articles are multiple, not always convergent, and overlap with other related concepts' definitions, like flexible working arrangements, flextime, and

activity-based work. There is a clear lack of agreement on what this concept means as well as what it represents in terms of managerial/HR practices and tools. Without a more stable definition of the NWW phenomenon, it will be problematic to contribute substantially to reflection on the contemporary world of work and its characteristics.

Related to NWW under-theorization is the question of its genuine novelty. An investigation of working forms and ways is a rather banal subject from a management perspective. This issue is actually as old as any foundational managerial concerns (Adler, 2009). For decades, countless studies and publications concerning isolated HR practices constituting NWW have been available on such topics as office configurations (Brunia et al., 2016; Gorgievski et al., 2010; Ruostela et al., 2015), time management flexibility and teleworking (Blok et al., 2012; de Vries et al., 2018), and organizational knowledge use (in relation to knowledge-sharing and organizational learning) (Gerards, de Grip, & Weustink, 2018). Therefore, NWW's newness may lie in the bundle argument defined in HR literature, which claims bundles of HR practices impact people more than isolated HR practices (Wright & Boswell, 2002), particularly horizontally integrated and synergistically interacting HR practices (Barrette, 2005). In this regard, NWW research should systematically include all related practices as independent variables, not one or two selected practices, to produce scientifically robust results.

The ultimate question is whether this concept can contribute to changing our perspectives on organization functioning and working conditions. The literature review shows the novelty may lie in the "relative" professional nomadism implied by the NWW notion, and in particular, that employees are given more autonomy regarding working time and workplace. Freeing oneself from time/place constraints is, it seems to us, this concept's originality, which is rooted in a contemporary reality related to the COVID-19 crisis, which has led to telework's near generalization for knowledge workers. Undoubtedly, the "remote" organizational measures that were quickly implemented will have a lasting effect on how we think about our relationship to work and how we organize it. To date, the procedural, organizational, and human conditions necessary for the development of these NWW are not yet fully known. Necessity, at least in the case of the COVID-19 crisis, is probably an essential condition, but other factors still must be identified and tested through rigorous research designs. As things stand, though, many NWW-dedicated articles are based more on managerial wishes and potentialities than on proven, concrete empirical findings.

5.2 Lack of a systematic research model

The selected articles highlight why NWW has developed rapidly in recent years by stressing the importance of different factors favoring NWW's emergence, development, and implementation. According to these authors, NWW is an adequate response to economic, social, and environmental changes, but their claims are based on insufficient empirical foundations.

State-of-the-art research on HR practices like NWW should include a full range of HR results and interacting variables to be reliable and valid. The 21 selected studies investigated so few outcomes that most of them can be regarded as incomplete. These outcomes include employee satisfaction, work commitment, inter-organizational knowledge-sharing, innovative behavior, stress, professional fatigue, burnout, in-role and extra-role performance, and productivity. Scant studies are interested in explaining these same variables; therefore, it is still challenging to draw sound conclusions about NWW's impact on these different outcomes. Furthermore, future studies must consider many unexplored variables, such as work motivation, relatedness well-being, or attachment to an organization.

Furthermore, important interactional variables have been largely ignored. Referring to the set theory for example, perceived organizational support and trust in organizations (both trust between employees and between employees and management) (Alfes, Shantz, & Truss, 2012; Cho & Ringquist, 2011; Destler, 2017), which appear central to NWW work

configurations, should be included. It would also be of great interest to assess the importance of organizational climate (Clarke, 2006; Gould-Williams, 2007) or organizational culture (Alvesson, 2002; Su, Baird, & Blair, 2009; Taylor, 2014) as interacting variables between NWW and various work outcomes. Other important variables are frequently used in HR-management studies, including leadership (Alimo-Metcalfe et al., 2008; et al., 2009) and HR attributes (Beurden et al., 2020), both of which may moderate or mediate the NWW and work outcomes relationship. Finally, sectoral differences (e.g., between private and public organizations) may be of interest, as HR results frequently differ between them (Perry & Hondeghem, 2008). Thus, there is strong potential for new research by increasing and diversifying work outcomes and making research models more complex by integrating interacting variables, the effects of which other HR-management studies have demonstrated.

5.3 Mutual gains or conflicting outcomes

Based on our literature review, we cannot address the dilemma concerning conflicting outcomes vs. mutual gains perspectives, not only because the results do not show any definitive trend but also because the number of empirical studies and their external validity are insufficient. Interestingly, besides our questions related to NWW impacts on employees' well-being and performance, a third question arises considering the nomadism argument developed above:

Are NWW more beneficial for employees than employers because the former may use and even abuse their newly gained freedom?

Most certainly the answer is related to the diverse representations and experiences of employees utilizing these different NWW practices (Mackey, 2016; Nishii, Lepak, & Schneider, 2008; Van De Voorde & Beijer, 2015). Depending on the constraints (or demands) on employees and available resources, positive or negative perceptions/attribution may be formed. The contrasting empirical results regarding the mutual gains–conflicting outcomes' issue suggest that further research is necessary to identify whether NWW practices can mutually benefit employees and employers as well as under which conditions (i.e., interacting variables) this ideal situation may occur.

Furthermore, NWW should generate positive outcomes by changing employees' behavior so they return the organizational efforts made to give them more favorable organizational conditions to their employer. This issue is not addressed by current NWW research. In fact, NWW introduces more flexibility for employees, but flexibility does not, per se, change behavior (Blok et al., 2012). Pure availability of NWW practices (e.g., freely accessible workspaces) is insufficient, in our opinion, to evaluate NWW's impact on employees. To test its real impacts, longitudinal studies are needed, which are currently rare (Jemine et al., 2019; Kingma, 2019; Nijp et al., 2016; ten Brummelhuis et al., 2012; Van Steenbergen et al., 2017).

6 Strengths and limitations

The present review has several strengths. To our knowledge, it is the first review on NWW aiming to understand their effects on employees' well-being and job performance. As we mentioned earlier, a first attempt was made by Kotera and Correa Vione (2020) but focuses mainly on NWW's psychological outcomes. We also included studies from various fields, namely historical social research, architecture, HRM, management, and psychology, with the goal of gaining a multidisciplinary perspective of NWW's constituent elements. Finally, our article questions the lack of theoretical foundations for NWW, which seems to be regarded as unimportant by researchers. Indeed, most studies try to assess these practices' effects without clearly understanding what they are and by ignoring the motivations underlying their introduction in organizations.

The review has some limitations, as well. By focusing on peer-reviewed articles, we did not consider other sources that could have deepened our NWW knowledge. Particularly, the book edited by de Leede (2017) should be mentioned, as it aims to have a critical

positioning about NWW's content and to assess their effects on both job performance and psychological outcomes. We also discarded work such as PhD theses (e.g., Palvalin, 2019) and reports (e.g., Medik & Stettina, 2014) which contained interesting NWW insights. We also disregarded non-English publications, for example those in French (Ajzen, Donis, & Taskin, 2015; Taskin & Raone, 2014).

7 Conclusions

This article contributes to reflection on NWW through the first systematic review focused both on well-being and performance issues. It highlights existing definitions' plurality and NWW's different effects on HR and organizational outcomes, highlighting that current research results are not convergent and insufficiently theoretically anchored. Our literature review demonstrates that a major effort is needed to define NWW and provide a sound theoretical foundation to account for more subtleties in the organizational and social mechanisms that empirical studies demonstrate.

The multiplication, or even replication, of field investigations based on the same research design is essential to better understand NWW's positive and negative effects on organizations and employees. Researchers should use more sophisticated research designs related particularly to interacting variables and HR outcomes.

Finally, a more interdisciplinary approach and perhaps slightly more critical reading would help broaden the NWW discussion, which, currently, is frequently confined to techniques or technology employed. Consequently, such discussions tend to underestimate human and organizational variables. It seems clear future NWW discussions cannot avoid questioning both the phenomenon's material and contingent aspects (the progress of technical and technological infrastructures) and the factors related to organizational governance (the legitimacy of changes in terms of structures, procedures, and rules) that are fundamentally linked to the human dimensions of management and organizations. This leads us to plead for an interdisciplinary perspective that would allow a richer view of the NWW phenomenon than the managerial or technical perspective, which still dominates the literature.

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