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Title: Leaders' intensified job demands : Their multi-level associations with leader-follower relationships and follower well-being

Year: 2023

Version: Published version

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Please cite the original version:

Herttalampi, M., Wiese, B., & Feldt, T. (2023). Leaders' intensified job demands : Their multi-level associations with leader-follower relationships and follower well-being. *Work and Stress*, 37(1), 78-99. <https://doi.org/10.1080/02678373.2022.2080776>



Work & Stress

An International Journal of Work, Health & Organisations

ISSN: (Print) (Online) Journal homepage: <https://www.tandfonline.com/loi/twst20>

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To cite this article: Mari Herttalampi, Bettina Wiese & Taru Feldt (2022): Leaders' intensified job demands: Their multi-level associations with leader-follower relationships and follower well-being, *Work & Stress*, DOI: [10.1080/02678373.2022.2080776](https://doi.org/10.1080/02678373.2022.2080776)

To link to this article: <https://doi.org/10.1080/02678373.2022.2080776>



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Published online: 30 May 2022.



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Leaders' intensified job demands: Their multi-level associations with leader-follower relationships and follower well-being

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ABSTRACT

To study the ever-increasing pace of work practices, we investigated leader experiences of intensified job demands (IJDs) and their effects on followers. Based on the challenge-hindrance approach, different kinds of job demands may produce either negative or positive work-related outcomes. Using this perspective, we investigated the leaders' IJDs against their followers' satisfaction with them as leaders, follower evaluations of the leader-member exchange (LMX) relationship quality, and their personal well-being (burnout and work engagement). Of the four IJDs, (1) work intensification and (2) career-related planning demands were conceptualised as negative hindrances for leaders, whereas (3) job-related planning/decision-making and (4) knowledge/skill-related learning demands were conceptualised as positive challenges. The data included 236 leaders and 990 followers, analysed with multilevel modelling. Leader feelings of increasing pressure to autonomously plan their job associated positively with followers' satisfaction. These job planning demands also associated with lower burnout and higher work engagement among followers. Contrary to expectation, leaders' career planning demands were positively associated with follower engagement. Our findings contribute to leadership literature by providing novel evidence of the role of IJDs in leadership, not only as strenuous work demands, but also as positive challenges that can be beneficial for leader-follower relationships and follower well-being.

ARTICLE HISTORY

Received 26 January 2021
Accepted 6 April 2022

KEYWORDS

Intensified job demands; challenge-hindrance approach; leadership; leader-follower relationship; follower well-being; multilevel analysis

Introduction

The digitalisation of modern society, and technological advances in artificial intelligence and robotics have not only intensified cognitive demands in the workplace but also increased the overall pace of our work lives (Chesley, 2014; Kubicek et al., 2015; Mauno et al., 2020). As a result, a growing sense of intensification has become a regular feature in our lives and workplaces (Rosa, 2003). In the work context, these changes have been conceptualised as *intensified job demands* (henceforth referred to as

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IJDs, Green, 2004; Kubicek et al., 2015). IJDs take the form of an accelerated pace of work, more decision-making demands on individuals about their jobs and careers, and requirements to continuously increase individual knowledge and skills at work (Kubicek et al., 2015; Mauno et al., 2020). Recent studies have begun by looking at how IJDs affect well-being (Korunka et al., 2015; Kubicek et al., 2015; Minkkinen et al., 2021; Paškvan et al., 2016), and there is some evidence that work intensification (especially time-related) has negative repercussions – such as burnout and job dissatisfaction (Franke, 2015; Green, 2004; Mauno, Minkkinen, et al., 2019). However, job- and career-related planning and decision-making, and the need to continuously update individual knowledge and skills have also showed some positive associations with well-being outcomes (Mauno, Minkkinen, et al., 2019). This would indicate that not all IJDs represent negative stressors, and that some can even act as positive challenges at work.

So far, empirical findings on IJDs have all been based on employees' self-reports, meaning the research has thus far neglected one important viewpoint: how IJDs and their consequences might affect leaders and their followers. This is important because we know that the number of job demands for those in leadership positions is likely to influence how they lead, which, in turn, further affects leader-follower relationships, and followers' satisfaction and well-being (Ellis et al., 2019; Montano et al., 2017; Schaufeli, 2015; Shuck & Herd, 2012; Skakon et al., 2010). Previous literature has been dominated by change-oriented leadership behaviours, such as transformational leadership – rightly criticised for its conceptual shortcomings. Previous studies have also largely focused on social-cognitive and relational mediators – such as self-efficacy, empowerment, and trust. Furthermore, the leadership behaviours and employee outcomes described have typically measured all the constructs from a follower perspective only (Inceoglu et al., 2018). In contrast, the present study focuses on how leader-rated IJDs affect their followers. Thus, we are adding to previous research by applying a hierarchical modelling approach in which the reports of leaders are combined with those of the employees that they are directly responsible for (i.e. their “followers”).

Our understanding of how leaders may influence follower well-being from previous studies (Inceoglu et al., 2018) is also limited by the fact that they have focused predominantly on positive, hedonic types of well-being – e.g. job satisfaction among followers. As Inceoglu et al. (2018) suggest, we acknowledge the importance of specific leadership behaviours in predicting different forms of employee outcomes, but we also look at a broader range of employee outcomes: follower satisfaction (towards their leader's task- and people-oriented leadership behaviours; see Yukl et al., 2002), quality of the leader-follower relationship (follower perceptions of leader-member exchanges, i.e. LMX quality), and follower well-being (looking at its negative as well as positive aspects by investigating follower burnout and work engagement).

Most importantly, we apply the challenge-hindrance approach to distinguish between the different kinds of IJDs in terms of whether they are conducive to the leader-follower relationship, and to follower satisfaction and well-being. Taken together, the inclusion of data from both followers and leaders, the differentiation between different expressions of relationship quality and employee well-being and the classification of IJDs along the challenge-hindrance dimensions is expected to contribute to a more comprehensive understanding of how the demands that leaders face in contemporary work and career settings translate into their followers' experiences and functioning.

Leader experiences of intensified job demands

This study uses a multidimensional model of IJDs (Kubicek et al., 2015) where each dimension represents a different aspect of the intensification of economic, societal, and organisational changes that also affect workplaces (Rosa, 2003). The original IJD model (Kubicek et al., 2015) consists of five dimensions and is applicable to employees working in different occupations and organisational roles. Although IJDs might initially appear as purely negative job stressors – and they were indeed originally conceptualised as such (Kubicek et al., 2015) – they can also be viewed more positively. Based on the challenge-hindrance approach (Cavanaugh et al., 2000; LePine et al., 2005), some job demands may produce positive work-related outcomes. Thus, our aim was to investigate whether leader experiences of four specific IJDs have a negative or positive effect on their followers, if any. We will then go through describing each IJD dimension, starting with those assumed to have a negative effect and ending with the positive.

The first dimension is *work intensification*, which refers to the increasing effort leaders need to invest in their daily work due to quantitative, time-related work demands stemming from digitalisation and increased ICT use (Kubicek et al., 2015; Mauno, Kubicek, et al., 2019). It means working at a quicker pace, multitasking, and having fewer and shorter work breaks (Kubicek et al., 2015). The second dimension is *intensified career-related planning and decision-making demands*, i.e. the growing pressure to attend to one's personal career development. Modern leaders face pressures to continuously prove their worth and role within their workplace and in the job market in general, and they must simultaneously plan and pursue future careers in a self-directed manner, both inside and outside their current organisation (Kubicek et al., 2015; Pongratz & Voß, 2003).

The third dimension is *intensified job-related planning and decision-making demands*, referring to the ever-increasing expectations that leaders should autonomously plan, execute, and evaluate their work and task-related goals (Kubicek et al., 2015). The final two dimensions – *intensified (4a) knowledge-related and (4b) skill-related learning demands* – stem from keeping on top of technological and societal changes (Korunka et al., 2015). These require leaders to constantly update and develop both their theoretical knowledge or expertise, and their practical skills – for instance with new equipment (Kubicek et al., 2015). Based on the strong conceptual and empirical overlap of these two dimensions (see Kubicek et al., 2015; Mauno, Kubicek et al., 2019), we combined them into one dimension, which we called *intensified learning demands*.

Because the central characteristic of intensification is how change occurs over time, the IJD model captures subjective perceptions of how job demands have changed for participants over the past couple of years. It is this dynamic, built-in aspect of change in IJDs, which distinguish them from otherwise similar concepts such as job control or time pressure, or from more traditional job demands – such as high workload or lack of autonomy. As such, it has been shown to have additional explanatory power (Franke, 2015; Kubicek et al., 2015). In the current cross-sectional study, this change was captured by asking leaders to retrospectively assess whether they had experienced each kind of IJD over the last five years.

Theoretical framework

As noted by Inceoglu et al. (2018), there is as yet no coherently organised theoretical approach in the existing literature to examining the relationship between leadership

behaviour and employee well-being. For our part, we take a twofold approach to understanding how and why leader IJDs can influence employee outcomes. The first, in line with Inceoglu et al. (2018), is to look at the resources leaders directly provide followers with via their behaviour, while the second approaches this relationship from the perspective of social communication.

Our main theoretical premise from this twofold approach is that the way a leader experiences IJDs will affect their leadership performance. Based on the modern understanding of leadership, leader behaviour is dynamic and characterised by change rather than stability (McClellan et al., 2019). Different challenges that emerge in the work context will determine a leader's behaviour – either supporting or constraining the way they behave towards followers (McClellan et al., 2019). For example, Sherf et al. (2019) found that leaders with high levels of workload tended to prioritise technical over relational tasks. Meta-analytical evidence also shows that a leader's behaviour has a greater impact on leadership effectiveness than a leader's traits (Derue et al., 2011), so we argue that IJDs primarily affect leaders' behaviour which, in turn, affect follower outcomes. For example, leaders who experience increasing work demands might have less time to devote to establishing human relationships, leading to a workplace climate that prioritises profit and performance outcomes over social relations which, in turn, will affect employees. To summarise, leader behaviours can be broadly classified as either conducive or unconducive to the desired outcome. Unconducive leader behaviours encourage negative affects among followers and negatively impact outcomes, whereas conducive (or “favourable”) behaviour (Gooty et al., 2010) do the opposite.

If we turn now to the social communication aspect of our approach, leaders can (directly or indirectly) communicate their personal experiences of IJDs to their work community, and thus create an organisational environment where employees become affected by them too (González-Morales et al., 2012). Whenever leaders directly interact with followers, this might add to an interpersonal relationship that homogenises feelings, beliefs, and attitudes among those present (e.g. Meredith et al., 2020). Based on the network model of social contagion (Friedkin & Johnsen, 1990), when this relationship is stronger, information about feelings, attitudes, and perceptions is exchanged more often. Leaders can become salient role models for their followers; as they interact directly with their subordinates, they make their feelings and perceptions more available and prominent for their followers. We, therefore, argue that leaders who experience high IJDs are more likely to transfer their experiences to their followers through social communication, impacting their mutual relationship and follower outcomes.

Follower outcomes

Existing literature on how leaders affect followers' well-being has predominantly focused on positive and hedonic forms (such as job satisfaction), while negative effects on follower well-being are less studied (Inceoglu et al., 2018). To redress this balance, we focused on follower ratings of both their leader's task-oriented behaviour (e.g. decision-making) and people-oriented behaviour (e.g. motivating others), as these are seen to be two key elements of effective leadership (Yukl et al., 2002). This enabled us to examine whether leader IJDs encouraged leader behaviour that was conducive to follower well-being – or the opposite.

To further capture the relational aspect of how followers might be affected by a leader's IJDs, we looked at how followers rated the quality of the relationship with their leader (LMX; Dulebohn et al., 2012; Graen & Uhl-Bien, 1995). Although LMX is often used as a predictor of different employee outcomes (such as job performance or commitment; Dulebohn et al., 2012), it can also provide important information on how followers perceive their personal relationship to be with their current leader. Because high-quality LMX relationships characterised by a mutual sense of respect, trust, and obligation (Graen & Uhl-Bien, 1995) are clearly valued by employees, they also act as a relevant follower outcome. LMX has been shown to correspond with certain leadership characteristics and behaviour (Dulebohn et al., 2012), and the provision of resources by the leader plays a central role in the development of a high-quality reciprocal relationship (Gregersen et al., 2016). Thus, we argue that leaders' IJDs can have a substantial effect on the quality of this relationship. For clarity and consistency, we will henceforth use the term "leader-follower relationship" to describe follower evaluations of both leader behaviour ratings and LMX quality.

Finally, to gain a more balanced view of employees' psychological well-being, we focused on work engagement as a potential positive outcome of leader IJDs, and burnout as an indicator of ill-being (see Bakker et al., 2014). Burnout is characterised by feelings of emotional exhaustion, a cynical and distant attitude towards one's work, and a decline in one's feelings of competence and achievement at work (Bakker et al., 2014); while work engagement was studied as a positive state of well-being, as engaged employees have a sense of effectiveness, energy, and strongly identify with their work (Schaufeli et al., 2002). Considering these two central concepts of employees' well-being makes it possible to test different types of leader IJDs (including both positive challenge and negative hindrance demands) to see if they will show specific associations with the well-being outcomes. The theoretical background of each IJD, and its expected consequences for these different follower outcomes will be explained in more detail next.

Hypothesis development: effects of leader IJDs to follower outcomes

Of the four IJDs, work intensification clearly represents a hindrance demand, having been previously associated only with negative outcomes such as burnout, psychosomatic complaints, and job dissatisfaction (Chesley, 2014; Franke, 2015; Green, 2004; Korunka et al., 2015; Kubicek et al., 2015; Mauno, Minkkinen et al., 2019). Work intensification can be seen as a task-related negative challenge (Hambrick et al., 2005), which refers to organisational or environmental conditions that make it difficult for a leader to retain a given level of performance. Leaders who experience high work intensification (e.g. having more to do in less time) may develop poor leadership behaviours (e.g. they place a greater pressure on others), which are likely to have negative repercussions on their followers (Hambrick et al., 2005). For example, leaders' perception of a high workload has been shown to correspond positively with follower reports of having experienced high levels of emotional exhaustion and a lack of supportive leadership (Stein et al., 2020). Thus, we expect that work intensification will have a negative effect on followers' well-being. Moreover, according to social network models (Friedkin & Johnsen, 1990), leaders will transmit their feelings, beliefs, and attitudes to their followers through social communication. So when a leader experiences an intensification of their

work (e.g. growing time pressure), it is likely that this stressful condition will have a negative effect on interpersonal relationships (including the leader-follower relationship). Taken together, these theoretical premises led to the following hypothesis:

H1: High work intensification among leaders is negatively associated with the leader-follower relationship and followers' well-being.

Intensifying career-planning demands can also be conceptualised as a hindrance for leaders. These require leaders to maintain their eligibility in the job market, which might make them less committed to their current job, position, or organisation, especially if they feel pressured to plan and pursue a career elsewhere. This can also lead them to experience lower job satisfaction (Höge, 2011; Kubicek et al., 2015). Based on the cognitive dissonance approach (Festinger, 1957), deciding to leave a current employer might also lead to selective information processing in an attempt to support the decision – for instance seeing the current work situation as worsening (see Hinojosa et al., 2017 for a review) – which could in turn result in investing less effort in the current job. Both these potential pathways (experiencing cognitive dissonance and/or low commitment and satisfaction) are likely to be reflected negatively in leader behaviour and social communication, affecting how leader will interact with their followers. This led to our second hypothesis:

H2: High career planning demands among leaders are negatively associated with the leader-follower relationship and followers' well-being.

The final two IJD dimensions are more likely to represent positive challenges for leaders. When leaders experience intensifying job planning demands, they face a greater need to make independent decisions and plans, which may well fulfil their need for autonomy at work. According to Ryan and Deci's (2000) self-determination theory, autonomy – as in acting with a sense of personal choice and volition – is one of our core psychological needs. Having a sense of this "latitude of action" (Hambrick & Finkelstein, 1987) means that leaders are able translate their preferences into action without the interference of external constraints. Previous research has, for example, shown that an increase in job-planning demands correlates positively with having a sense of control over one's job and decision-making (Kubicek et al., 2015). Using one's own discretion when carrying out a job has also been associated with positive well-being outcomes (De Spiegelaere et al., 2016; Kubicek et al., 2017). Thus, leaders with high job planning demands are likely to show favourable leader behaviours and will transfer their positive experiences to followers through social communication. These potential mechanisms can support the quality of leader-follower relationships and positively affect followers' own well-being. Taken together, this led to our third hypothesis:

H3: High job planning demands among leaders are positively associated with the leader-follower relationship and followers' well-being.

Finally, knowledge and skill-related learning demands have also been conceptualised as positive challenge demands for leaders. Responding to these types of demands includes updating one's work-related knowledge and adjusting personal skills to new work practices, that is, developing one's competences in a self-directed and strategic manner (see

Kubicek et al., 2015). Thus, learning demands might not only enhance a leader's competence by increasing their leadership skills and supporting their leadership development (Day et al., 2014) but also make them more committed to their current organisation (Weng et al., 2010), as it provides them with opportunities where they feel they are learning and developing. Updating one's personal knowledge and learning new skills can thus represent a motivating challenge (Korunka et al., 2015). Therefore, we expect it to be reflected in conducive leader behaviour and positive social communication in leader-follower relationships. This led to our final hypothesis:

H4: High learning demands among leaders are positively associated with the leader-follower relationship and followers' well-being.

Method

Data collection and participants

We combined different data collection methods to reach a diverse convenience sample of leaders and their followers from different employment fields in Finland. First, we used labour unions as the primary collaborative partners in the data collection. This provided a broad sampling basis because the majority of employees in Finland (64.5 per cent in 2013; Ahtiainen, 2015) are members of trade unions – organised according to the service or industry. Data was consequently collected from the Unions of University Professors (*Professoriliitto*), of University Researchers and Teachers (*YLL*), of Finnish Business School Graduates (*Suomen Ekonomit*), of Academic Architects and Engineers in Finland (*TEK*), and the Confederation of Unions for Professional and Managerial Staff in Finland (*AKAVA*). To reach members of the first two unions, an electronic questionnaire was sent to those participants who were currently working (i.e. who were not retired or students). Similarly, an electronic questionnaire was sent to a random sample of 3000 members of the next two unions. The response rates were 45 per cent, 26 per cent, 17 per cent, and 13 per cent, respectively. In *AKAVA*, the questionnaire was sent out as an open invitation with a link to an electronic questionnaire that resulted in 141 responses. Participants were also recruited from an Executive MBA (EMBA) program, targeted at business managers with at least three years of work experience in a managerial or supervisory position. In the EMBA program, contact persons delivered the questionnaire to potential participants ($n = 644$), 161 of whom responded (a response rate of 25 per cent). Finally, as part of their studies, psychology students volunteered to recruit highly educated leaders among their acquaintances ($n = 23$). The original sample thus came to a total of 1220 leaders.

All leaders who gave their permission (in the first phase of data collection) to be contacted for the leader-follower study received a second email a month later. It included a description of the aims, procedure, and confidentiality of the leader-follower study and a link to an electronic survey for followers. Leaders were asked to forward the link and study information in the email on to their followers (defined as employees who directly reported to them). Follower responses were thus delivered directly to the research group via the electronic survey without needing to go via their leaders. The link included an ID code that indicated each follower's leader, which then made it possible to match each follower's data with their respective leader. This matching procedure was made clear in the information letter received by each participant.

Leader participants

All those leaders who managed to recruit their followers into the research project were included in the present study ($n = 236$). Of these participants, 41 per cent were from the EMBA program or recruited by psychology students, 25 per cent were from the social and health sector (mostly AKAVA), 23 per cent professors, 6 per cent university teachers and other academics, 3 per cent business sector leaders, and 2 per cent engineers. Of the participants, 55 per cent were women and over half of all the participants had a degree in higher education (52 per cent). The average age of leader participants was 50.1 years ($SD = 7.8$), and the mean of their past leadership experience was 13.59 years ($SD = 8.45$). No significant differences emerged in demographic background factors between leader participants and those leaders who were excluded for not recruiting followers ($n = 984$), apart from the fact that participants were on average one year younger [$\chi^2(1, 1217) = 6.68, p = .010$].

Follower participants

The hierarchical sample included 990 followers, who were all recruited from the leader participants. The ratings by followers were combined with the data of the leader or supervisor they worked directly under, and who had recruited them to participate in the study. The number of followers per leader ranged between 1 and 14 ($M = 4.2$). Of the followers, 67 per cent were women, 58 per cent were aged between 31 and 50. The average duration of their working relationship with the supervisor was 3.6 years ($SD = 3.4$, range from 0.1 to 20 years), and they worked on average 41 hours per week. Some followers themselves also worked in a supervisory position (35 per cent).

Measures

Leader measures

IJDs were measured using the Intensification of Job Demands Scale (IJDS; Kubicek et al., 2015). Leaders were asked to rate whether they had experienced an intensification in each kind of demand during the last five years (or during their whole time in the current job if in post for less than five years). The measure had five sub-scales: work intensification (5 items, e.g. “ever more work has to be completed by fewer and fewer employees,” $\alpha = .89$); job planning (5 items, e.g. “one increasingly has to check independently whether work goals have been reached,” $\alpha = .81$), career planning (3 items, e.g. “one increasingly has to plan one’s professional career independently,” $\alpha = .69$); knowledge learning (3 items, e.g. “one has to acquire new expertise for the job more often,” $\alpha = .83$); and skill learning (3 items, e.g. “one has to use new work equipment (devices, programs, etc.) more often,” $\alpha = .89$). Each item was rated on a 5-point Likert scale ranging from 1 (*completely disagree*) to 5 (*completely agree*), with higher mean scores indicating a greater overall intensification of job demands. Of the five IJD dimensions, knowledge and skill learning had the highest correlations between their mean scores (.80, $p < .001$). Therefore, as mentioned earlier, they were combined into one dimension called *learning demands* ($\alpha = .92$). Similar high correlations between knowledge- and skill-related learning dimensions have been found in previous studies (Kubicek et al., 2015; Mauno, Kubicek et al., 2019).

Follower measures

Followers' satisfaction with their leader's behaviour was measured with six items based on previous literature representing both people- and task-oriented leadership behaviour (Yukl et al., 2002). Followers were asked to evaluate their leader (i.e. the person who had recruited them for the study) in terms of six different leader attributes (e.g. "ability to make decisions"). Followers rated their satisfaction with their leader's behaviour according to each of these attributes with a 5-point Likert scale (from 1 = *not at all* to 5 = *very satisfied*). Two sum scores – based on exploratory and confirmatory factor analyses (see Authors, 2020) – were then used in further analyses. These were *task-oriented leadership behaviours* (3 items: ability to make decisions, responsibility, and planning) and *people-oriented leadership behaviours* (3 items: inspiring others, motivating others, and giving feedback). These sum scores had sufficient reliability coefficients ($\alpha = .82$ and $\alpha = .89$, respectively).

The followers' perceptions of their leader-member exchange relationships were measured with the LMX-7 scale (Graen & Uhl-Bien, 1995). This shortened scale has been supported for its validity over other LMX measures following both the results of a meta-analysis (Gerstner & Day, 1997) and a broad review (Graen & Uhl-Bien, 1995). The scale includes items such as "My supervisor recognises my potential," and "I would characterise my working relationship with my supervisor as extremely effective," which followers also rated on a 5-point Likert scale ($\alpha = .89$), ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), with higher values indicating a better LMX relationship.

Follower *burnout* was measured with the nine-item Bergen Burnout Inventory (BBI-9), which has shown time- and sample-invariant factor structure (Salmela-Aro et al., 2011; see also Feldt et al., 2014). It captures three dimensions of burnout: exhaustion (3 items; e.g. "I am snowed under with work"), cynicism (3 items; e.g. "I feel dispirited at work and I think of leaving my job") and inadequacy (3 items; e.g. "My expectations for my job and my performance have reduced"). All items were answered on a 6-point Likert-type scale ($\alpha = .85$) ranging from 1 (*totally disagree*) to 6 (*totally agree*), higher scores indicating higher burnout.

Work engagement was measured with the nine-item version of the Utrecht Work Engagement Scale (UWES-9; Schaufeli et al., 2002; Seppälä et al., 2009). The scale was used to reflect three dimensions of work engagement: vigour, dedication, and absorption. Each dimension was measured with three items, e.g. "At work, I feel that I am bursting with energy" for vigour, "I am proud of the work I do" for dedication, and "I get carried away when I'm working" for absorption. Items were answered on a frequency-based scale ($\alpha = .93$) ranging from 1 (*never*) to 7 (*daily*), higher scores indicating more frequent experiences of work engagement.

Control variables

Control variables were deemed necessary because both leader and follower characteristics have previously been shown to influence the leader-follower relationship (for a review, see Dulebohn et al., 2012), and follower demographic and work-related factors are likely to relate to their well-being. These exogenous variables were *gender* (1 = female, 2 = male) and *age* (leaders: in years, followers: in six age groupings that were treated as a continuous variable with values ranging from 1 to 6). We also included leader

experience in leadership tasks throughout their career (in years), the length of time followers had worked with current leader (in years), followers' work hours per week, and whether or not followers currently held a managerial position (1 = no, 2 = yes). These variables were then tested for their correlations with both independent and dependent study variables (see [Table 1](#)).

Analyses

The statistical analyses on leader-follower hierarchical data were performed using multi-level modelling, where the followers (level 1) are nested within higher levels of classification – with their own leader (level 2). Instead of using the standard multilevel modelling approach, we applied a multilevel structural equation modelling (MSEM) framework to test our hypotheses (Preacher et al., 2010). The main justification for using this approach is that it avoids potential problems of conflating within- and between-level relationships (Preacher et al., 2010). Because we used the MSEM framework, it means that the variables assessed at level 2 have only between components of variance – in our case, the between-level variables were the leader-rated IJDs. However, variables assessed at level 1 typically have both between and within components, as was the case for all the follower outcomes in the current study. Because they have both these components, the between component necessarily remains uncorrelated with the within component of that variable and the within components of other variables in the model (see Preacher et al., 2010). Therefore, because a level 2 predictor cannot predict within-group variance among individual followers, the leader-follower relationships (2-1) were assessed by examining the between-level relationships among these variables (Zhang et al., 2009).

All multilevel analyses were performed with the Mplus program (version 8.0; Muthén & Muthén, 1998/2017). Separate models were estimated for each of the four IJDs because of the multicollinearity between these dimensions. Here, we used sum scores instead of factors because the number of parameters would have exceeded the number of data units (especially at the between level), which would have led to unidentifiable models. In each of the multilevel models, those exogenous variables that had significant correlations with dependent variables were included as control variables (see [Table 1](#)): leader age, leader-follower relationship duration, follower working hours, and followers' own management tasks.

Results

[Table 1](#) summarises the means, standard deviations, and correlations of study variables. Of the exogenous demographic variables concerning leaders, only their age had a significant association with follower satisfaction: the older the leader, the less satisfied followers seemed to be with their leader's task-oriented behaviours. Among followers, their weekly working hours correlated positively both with burnout and work engagement. In addition, those followers who worked as managers themselves reported higher work engagement. Finally, the longer the duration of the leader-follower relationship, the more burnout the followers reported.

The variation in follower outcome variables was investigated by calculating intraclass correlation coefficients (ICCs). This was done by dividing the between-level variance by

Table 1. Variable means, standard deviations, and correlations.

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<i>Leader variables</i>																			
1. Gender	1.45	0.50																	
2. Age	50.2	7.75	-.04																
3. Leader experience	13.6	8.49	.17	.46															
4. Work intensification	3.61	1.03	-.16	.06	-.08														
5. Job planning	3.82	0.79	-.20	-.14	-.08	.53													
6. Career planning	3.45	0.89	-.09	-.24	-.06	.29	.60												
7. Learning demands	3.99	0.76	-.16	.02	.05	.36	.46	.27											
<i>Follower variables</i>																			
8. Gender	1.33	0.47								-.01	.14	.05	.12	-.05	-.03	.00	.05	-.08	
9. Age	3.87	1.07									.12	.21	.13	-.01	-.02	-.02	.05	.04	
10. Management tasks (yes/no)	1.35	0.48										.03	.21	-.01	-.03	.02	.00	.12	
11. LM-relationship duration (years)	3.51	3.36											.06	-.05	-.02	.00	.12	-.08	
12. Weekly work hours																-.04	.15	.10	
13. Satisfaction with people-oriented leadership behaviour	3.84	0.89	.04	-.18	-.07	.13	.21	.10	.19							.67	.71	-.38	.31
14. Satisfaction with task-oriented leadership behaviour	4.13	0.74	.02	-.33	-.12	.02	.24	.14	.04								.67	-.37	.35
15. LMX quality	4.04	0.78	.10	-.19	.02	.10	.29	.16	.19									-.31	.26
16. Burnout	2.51	0.87	-.02	.33	.05	-.03	-.43	-.30	-.12										-.54
17. Work engagement	5.78	0.99	.19	-.30	.17	.05	.37	.36	.11										

For followers, the within-level correlations are presented above the diagonal and between-level correlations below the diagonal.

Note. Gender: 1 = female, 2 = male; Leader age and leader experience in years; Follower age: 1 = 20 years old or below, 2 = 21–30 years old, 3 = 31–40 years old, 4 = 41–50 years old, 5 = 51–60 years old, 6 = 61 years old or above; LM = leader-member. Correlation coefficients marked with a bold font are significant at the $p < .001$ level; coefficients in italics are significant at the $p < .01$ level.

the total variance, which provides an estimate of what proportion of the total variance is accounted for by level 2 (i.e. followers nested within their leader). To perform this operation, we used the *model constraint* option in Mplus, as it also tests for the statistical significance of each ICC. The resulting ICCs were .15 for *satisfaction with task-oriented leadership behaviours* ($p < .001$), .15 for *satisfaction with people-oriented leadership behaviours* ($p < .001$), .11 for *LMX quality* ($p < .001$), .07 for *burnout* ($p < .01$), and .10 for *work engagement* ($p < .01$). Thus, for all outcome variables there was modest, yet statistically significant amount of variance due to shared experiences among followers of the same leader, and it vindicated our decision to conduct further multilevel analyses.

All estimates from the MSEM models are presented in Table 2. Hypothesis 1 was not supported, as leader-rated work intensification was not associated with any of the follower outcomes. We found support for Hypothesis 2, however, as those leaders who experienced greater job-planning demands had followers' who were more satisfied with their task- and person-oriented leader behaviours ($R^2 = .085$ and $R^2 = .046$, respectively), gave better ratings on their LMX relationship ($R^2 = .056$), while reporting lower burnout ($R^2 = .139$) and higher work engagement ($R^2 = .125$). The R -square values indicate the proportion of variance in the dependent variable that can be explained by the independent variables. Because the leader-follower relationships were assessed by

Table 2. Multilevel estimates between leaders' intensified job demands, leader and follower control variables, and follower outcomes.

Predictor variables	Follower outcomes									
	Satisfaction with task-oriented leadership behaviours		Satisfaction with people-oriented leadership behaviours		LMX quality		Burnout		Work engagement	
	Estimate	S.E.	Estimate	S.E.	Estimate	S.E.	Estimate	S.E.	Estimate	S.E.
Within-level (Level 1)										
Follower-leader relationship duration (in years)	-.005	.009	-.015	.012	.001	.010	.033**	.012	-.033*	.015
Follower working hours (per week)	-.004	.004	-.004	.004	-.004	.004	.018***	.004	.014*	.006
Follower's own management tasks (1 = no, 2 = yes)	-.065	.080	-.014	.096	.021	.090	-.102	.084	.202*	.087
Between-level (Level 2)										
Follower-leader relationship duration (in years)	.003	.019	.006	.025	.002	.018	.013	.025	.010	.029
Follower working hours (per week)	.013	.009	.018	.011	.012	.009	.005	.009	.014	.012
Follower's own management tasks (1 = no, 2 = yes)	.100	.104	-.042	.135	.185	.108	-.040	.105	.349**	.123
Leader age (in years)	-.013**	.004	-.010	.005	-.007	.004	.009	.005	-.012*	.005
Leader work intensification	.019	.030	.056	.035	.035	.032	-.016	.036	.032	.038
Leader job planning demands	.085*	.036	.095*	.044	.103**	.038	-.131**	.043	.152**	.049
Leader career planning demands	.024	.033	.023	.041	.039	.037	-.061	.039	.113**	.042
Leader learning demands	.024	.037	.095*	.043	.072	.039	-.047	.043	.064	.052

Note. Significant estimates are marked with a bold font. * $p < .05$; ** $p < .01$; *** $p < .001$.

examining the between-level relationships among these variables (Zhang et al., 2009), the *R*-square values also represent level 2 variance. In other words, they represent the proportion of between-leader variance (followers nested within their leader) that can be explained by the leader-rated variables. Contrary to Hypothesis 3, we found a positive correlation between leaders experiencing greater career-planning demands and followers reporting higher work engagement ($R^2 = .097$). Finally, in partial support of Hypothesis 4, we found a positive correlation between leaders experiencing greater learning demands and followers reporting their satisfaction with people-oriented leadership behaviours ($R^2 = .044$). Taken together, we found slightly stronger effects for the sense of well-being among followers than for the perception of quality in the leader-follower relationship.

Supplementary analyses

Because we did not find the hypothesised effects of leader's work intensification to any of the follower outcomes, we ran additional analyses to investigate one potential explanation for this – that the amount of previous leadership experiences had moderated the effect of leader work intensification on follower outcomes (Day et al., 2014). Leaders with greater experience might have found ways to cope with work intensification, so that these demands would not translate into poor behaviour or negative emotions towards followers. The leaders in the present study had an average of almost 14 years leadership experience ($M = 13.6$, $SD = 8.49$), in which time they might have developed strategies for dealing with the intensification of work, a greater need to multitask, and less time overall.

Based on these assumptions, we tested an additional multilevel model, where we added an interaction term (leader work intensification \times leader experience in years) as a between-level predictor variable. This interaction term had no significant between-level associations with either follower satisfaction or task- and person-oriented leader behaviours (estimates were $-.033$ and $-.019$, with *p*-values of $.457$ and $.676$, respectively), or with LMX quality (estimate $.007$, $p = .867$), or with follower burnout (estimate $-.086$, $p = .060$). However, we found a significant moderator effect for follower work engagement (estimate $.077$, $p = .020$). As shown in Figure 1, when experienced leaders encountered an intensification of their work, it was associated with a higher level of employee engagement. Meanwhile when the same happened to leaders with less experience, it was associated with lower follower engagement.

Discussion

One characteristic of contemporary work contexts that this study aimed to explore was the ever-increasing pace of change (Rosa, 2003). This was done by looking at IJDs (Kubicek et al., 2015) from a new perspective: based on two main theoretical premises, we argued that leader experiences of different kinds of IJDs would affect their followers. Firstly, we suggested that employees are influenced by the resources that a leader's behaviours provide, and that these behaviours will be affected by intensified job demands leaders face in their work. Secondly, according to the social communication perspective, we argued that leaders communicate their personal experiences of IJDs to their work

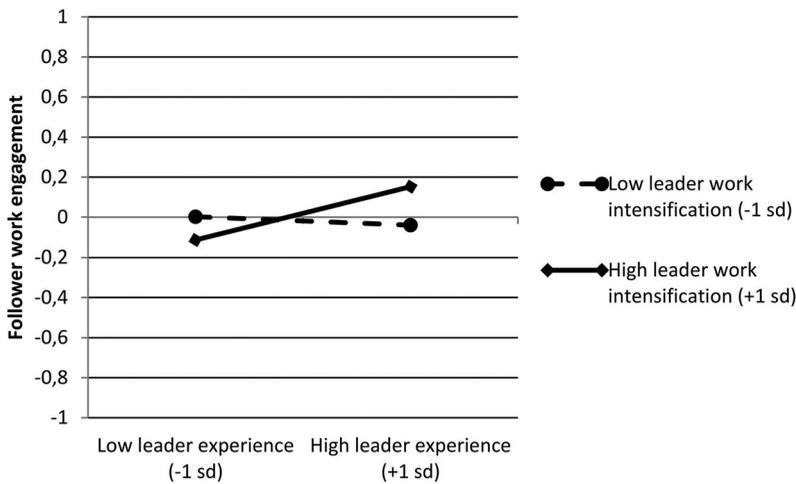


Figure 1. The moderating effect of leader work experience on the relationship between leader work intensification and follower work engagement.

community, so creating an organisational environment where employees are affected by the IJDs experienced by their leader.

These pathways describe how and why negative leader demands will have negative effects on both the leader-follower relationship and the well-being among followers, while positive leader demands will have positive effects on them. Based on the challenge-hindrane approach (Cavanaugh et al., 2000; LePine et al., 2005), we considered both positive and negative associations between IJDs and their potential outcomes and posed a set of hypotheses that considered the specific nature of each IJD. We hypothesised that leaders would portray work intensification and career-related planning demands as negative hindrances, while job-related planning/decision-making and knowledge- or skill-related learning demands would be portrayed as positive challenges. However, we found only partial support to our hypotheses, which we will look at in greater detail next.

Theoretical implications

To date, there is a small but growing number of studies that have begun to disentangle the effects resulting from different types of IJDs using the challenge-hindrane approach (Chesley, 2014; Franke, 2015; Green, 2004; Korunka et al., 2015; Kubicek et al., 2015; Mauno, Minkkinen et al., 2019; Minkkinen et al., 2021; Paškvan et al., 2016). Our findings also contribute to these, though we found strong support for only one of our hypotheses: that leaders' recent experiences of autonomous job-planning demands had consistently positive associations with all follower outcomes. Additionally, we found that leaders who felt their job required them to develop their knowledge and skills (i.e. had high learning demands) were given positive ratings by followers for their people-oriented behaviour.

Taken together, these findings are in line with previous suggestions outlined in the review on dynamic leadership (McClellan et al., 2019) – in order to develop positive

leadership behaviours and skills, leaders need to face certain experiential triggers in their work which will then change their behaviour. Here, the types of experience matter, and challenging ones especially will facilitate this kind of growth (McClellan et al., 2019). Unfortunately, we were not able to explicitly test how leaders perceive and appraise the different IJDs or the impact that IJDs have on actual leadership behaviours. To gain more information on whether these demands are experienced as negative stressors or positive challenges would require a direct assessment of how people appraise them, rather than simply making inferences from stressor measures (see Searle & Auton, 2015).

Nevertheless, we would suggest that the positive evaluations of leaders by their followers provide some evidence to show that job planning and learning demands are not necessarily always a hindrance – they may sometimes also have the positive effect of being challenging experiences that support leadership and lead to positive follower outcomes. As such, our research contributes to both the challenge and hindrance approach (Cavanaugh et al., 2000; LePine et al., 2005) and the literature on job intensification (Green, 2004; Kubicek et al., 2015), since it acknowledges that different IJDs can also support better leadership.

However, it is also important to consider the price that leaders themselves might pay for meeting the challenges that bring positive follower outcomes. Based on their broad review, Mazzola and Disselhorst (2019) conclude that even though challenge demands can instil a motivation to overcome them, they may only lead to short-term positive results, eventually resulting in overall negative physical and psychological outcomes caused by the accumulated loss of energy and resources that these challenges require. In our study, the time lag in data collection between leader and follower evaluations was only one month. To investigate the long-term effects of IJDs – even from the perspective of positive challenges – requires a longitudinal design with a longer time frame. This would allow us to test whether the short-term gains from challenge demands might turn into negative stress experiences over time.

Against our expectations, however, no significant associations were found between leader's experiences of work intensification and follower outcomes. To understand better why this was so, we ran additional analyses to investigate whether previous experience of leadership tasks had a moderating effect on leader-follower associations. We assumed that leaders with more experience had found ways to cope with work intensification (such as increased multitasking and time pressure), which would prevent them translating into unproductive behaviour or negative emotions directed at followers. One such moderating effect was found: when experienced leaders were undergoing an intensification in work demands, it was found to be associated with a higher level of employee engagement. As such, we did not find any evidence of the so-called buffering effect, where a long experience of leadership is assumed to stop work intensification from trickling down to followers. Nevertheless, the boosting effect that experienced leadership seemed to have on the work engagement of followers confirms our argument – suggesting that a combination of high work intensification and leadership experience can lead to engaging leadership (see Nikolova et al., 2019).

Another surprising finding was that leaders who experienced intensified career-planning demands had followers who reported high work engagement, not poor well-being, as we had hypothesised. We will further consider this finding in the practical implications. Taken together, we can conclude that, theoretically, our findings support the

need to distinguish the different aspects of IJDs. Here, the challenge-hindrance approach (Cavanaugh et al., 2000; LePine et al., 2005) offers a useful framework for understanding both the harmful and beneficial effects of job intensification, although understanding the long-term effects of IJDs on leaders' own work stress and well-being needs more research.

Finally, our findings have contributed to the literature on leadership by providing novel evidence that IJDs among leaders can serve as predictors for a range of follower outcomes. Our understanding of how leaders may influence follower well-being from previous studies (Inceoglu et al., 2018) is also limited by the fact that they have focused predominantly on positive, hedonic types of well-being – e.g. job satisfaction among followers. Thus, we examined different indicators related to the leader-follower relationship and both the negative and positive aspects of follower well-being (by investigating follower burnout and work engagement). Although the job planning demands of leaders had associations with the whole range of follower outcomes, their career planning demands only correlated with work engagement, and their learning demands with follower evaluations of people-oriented leadership behaviours. Future research should thus consider that different leadership-related factors may have different associations depending on the kind of follower outcomes being considered. This will help gain a more comprehensive understanding of different leader-follower effects.

Practical implications

Our findings seem to indicate that leaders faced with increasing demands to independently plan, execute, and monitor their workflow are generally perceived as better managers and leaders to their followers, which can also associate with positive follower well-being. This means that, at least from the followers' perspective, these IJDs are challenge demands that can actually have positive outcomes. One could thus argue that successfully dealing with these challenges improves a leader's planning and decision-making skills (see also Hambrick et al., 2005) and that followers, in turn, stand to benefit as they are more satisfied with their leader, and experience low shared burnout and high work engagement. A similar argument could be made about leaders experiencing increased learning demands, which not only show they are developing themselves professionally, but result also in their people-oriented leadership skills being positively recognised by their followers. Of course, the potential mechanisms that cause these associations remain only speculative at this stage and must be explicitly tested in future research.

As we found that leaders with increasing career-planning demands can create a greater sense of well-being among their followers (i.e. higher work engagement), it seems relevant to ask why this might be so. The high proportion of leaders recruited from EMBA training (41%) and academic leaders (29%) in the current sample might partly explain this unexpected finding. In university context, individuals who have committed into pursuing an academic career are very likely to experience high career-planning demands, as success in academia demands a constant demonstration of productivity, quality, and progress (see Kwiek & Antonowicz, 2015). Thus, among this particular working population, it is possible that leaders' career-related planning can be either communicated to or perceived by the followers as a positive and desirable sign of personal aspirations and commitment to the academic career. In a similar manner, those leaders who participated in the study while being in EMBA training might experience

career-planning demands as a positive challenge, which could reflect their willingness to increase their knowledge and skills relevant for succeeding further in senior leadership roles. In both cases, the leaders' efforts towards their career promotion might – against our initial theorising – convey positive meaning and affect, which can then be transmitted to followers through their behaviour or while communicating their personal experiences to the work community. In sum, it seems relevant to distinguish whether career-related planning demands are experienced either as personal pressure on one to secure future employability or as a positive opportunity to be in control of one's own career development. In the latter case, leaders are ideally perceived as inspiring and encouraging role models of proactive career management.

Limitations of the present study and possibilities for future research

One strength of our study was that it generated new empirical evidence about the nature of IJDs and their outcomes among real-life groups of leaders and followers. Acquiring hierarchical information from multiple sources (both leaders and followers) reduced the risk for common method bias (Podsakoff et al., 2003). In addition, our study design followed the hypothesised ordering from predictor variables to outcomes, as the leaders first rated their IJDs, after which they were then invited to include followers, who then gave personal ratings of satisfaction with their leaders a month later. However, we did not have the opportunity to use a cross-lagged study design, so our data did not allow us to test potential mediating mechanisms between the leader-rated IJDs and follower outcomes, nor did it allow any tests of causality or temporal order to be made between the different constructs. Thus, we could not examine distinct trajectories to see how different types of follower well-being develop, nor look at the differential mediator effects of the four types of IJDs on different types of follower outcomes, as suggested by Inceoglu et al. (2018).

There is also the risk of the sample being selective. One could argue that because participation was voluntary, leaders who participated might be, for example, more willing to develop professionally. They might have also known that they would be able to motivate their followers to participate. We have no information on whether the leaders invited all their followers to participate in the study or just selected a few, nor did we know how many of the followers invited did finally respond. However, as the average size of the follower groups was four employees per leader, the risk of biased evaluations (whether positive or negative) was reduced, meaning our findings were more reliable than if we had received feedback from only one or two followers per leader.

Although our focus in the current study was on the follower-related outcomes of leaders' IJDs, it is important to acknowledge the potential impact of IJDs on leaders themselves. Even though followers reported positive outcomes such as higher satisfaction with a leader who had successfully tackled IJDs, it is possible that this comes at a personal cost to the health and well-being of the leader themselves (Mazzola & Disselhorst, 2019; Searle & Auton, 2015), even if at the same time it is pushing their leadership skills forward. Future research should, therefore, investigate the leaders themselves in more detail, exploring the conditions under which IJDs may be experienced as either positive challenges or negative hindrances. Furthermore, studies could reveal what kinds of personal cost are involved when leaders strive to fulfill these increasing

demands, regardless of whether they are experienced as either challenges or hindrances.

Future research could also investigate more thoroughly how exactly IJDs experienced by leaders translate into leader behaviours or emotions, which might then entail and explain different follower outcomes. This could include longitudinal mediation models, which would directly measure leaders' personal appraisals (Searle & Auton, 2015) of different IJDs and whether or not their behaviour is conducive (or "favourable;" Gooty et al., 2010) to good leadership. These could then be tested as mechanisms between leader experiences and follower outcomes. Also, the social communication perspective could be more explicitly tested by including (as a mediator between leader IJDs and follower outcomes) how followers perceive the way their leaders express feelings and attitudes in the workplace.

Conclusion

We found that leaders who are faced with increasing demands to independently plan, execute, and monitor their workflow have followers who are satisfied with their leaders' abilities to make decisions, act responsibly, and cultivate high quality LMX relationships. These followers also reported lower burnout and higher work engagement, thus indicating beneficial leader effects for follower well-being. These preliminary findings provide an important insight into how IJDs among leaders could have a positive influence on employees even in work environments where it is now becoming increasingly common for demands and pressure to run rife. However, more research is clearly needed on the longer-term consequences of such IJDs, which could gradually metamorphose into negative stressors over time.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This research was supported by the Academy of Finland [grant number 308336] and the Finnish Work Environment Fund [grant number 116163].

Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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