



Facilitating positive blended working arrangements for people with different psychological needs: The role of leadership

Sindre A. Stuurwold van Walsum

Master Thesis – Talent Development and Creativity

S3569896
12-2022
Department of Psychology
University of Groningen
Daily supervisor: Burkhard Wörtler

A thesis is an aptitude test for students. The approval of the thesis is proof that the student has sufficient research and reporting skills to graduate but does not guarantee the quality of the research and the results of the research as such, and the thesis is therefore not necessarily suitable to be used as an academic source to refer to. If you would like to know more about the research discussed in this thesis and any publications based on it, to which you could refer, please contact the supervisor mentioned.

Abstract

Blended working arrangements have become increasingly popular due in part to the covid-19 pandemic. How effective job satisfaction is in comparison to traditional office-based work settings might depend on differences in personal needs. In this study we looked at whether the relationship between opportunity for blended working and job satisfaction is moderated by the personal need for structure. We also looked at whether this moderation effect can be compensated for by using a task-oriented leadership style. We conducted a cross-sectional survey study including a sample of 61 workers who completed the study. We found that personal need for structure moderates the relationship between opportunity for blended working and job satisfaction but found no significant three-way interaction for the effect of task-oriented leadership. These results are an initial step in bringing together the lines of research on the effects of blended working arrangements, individual differences in needs, and leadership styles.

Keywords: blended working, need for structure, cross-sectional survey, leadership

Facilitating positive blended working arrangements for people with different psychological needs: The role of leadership

The working context has been changing in the past years, from a more conventional ‘working from the office’ to a more modern ‘blended working’ environment, where employees have discretion over when and where they work. This change of working mode has been considerably accelerated by the COVID-19 pandemic (Diab-Bahman & Al-Enzi, 2020). When the pandemic came, many companies had to find a way for their employees to keep working without the possibility of having them come to the office. Hence why blended working arrangements became a lot more popular during this period. Blended working is described as “time-independent and location independent working enabled through high-tech ICT software, devices and infrastructure” (Van Yperen et al., 2014). Technological advancements such as internet, e-mail, chatting and video calling have increased the possibilities for organizations to implement these blended working arrangements (BWAs) as when real-time interactions between colleagues was needed, the new technology made it possible to do so from a different location, even a different country. In previous research teleworking, which is an aspect of blended working arrangements (BWAs), was shown to have a positive relationship with desirable outcomes such as job satisfaction (Gajendran & Harrison, 2007).

In the current study I aim to investigate job satisfaction as criterion (dependent variable). Job satisfaction is defined as the degree to which people like their jobs (Spector, 1997). Naturally, increasing the degree to which people like their job is beneficial to any employee. As opportunities for blended working involve an increase in freedom of choice when it comes to when and where the employee works it also increases autonomy, which has been found to positively influence job satisfaction (Saragih, 2011; Gözükarar and Çolakoğlu, 2016). However, there have also been findings indicating that blended working is not equally

as effective for everyone; rather, its positive outcomes are likely to depend on individual differences such as individuals' psychological needs (Van Yperen et al., 2014; Wörtler et al., 2021).

A psychological need that is likely particularly relevant in the blended working context is the need for structure. The need for structure refers to the preference of structure and clarity in most situations, with ambiguity and grey areas proving troublesome and annoying (Thompson et al., 2001). People who do not have a high need for structure likely feel more comfortable with the increased freedom and autonomy that blended working provides. Whereas people who have a high need for structure may find blended working arrangements where the amount of structure given to them is low to be harder to work in.

Given the proliferation of blended working, an important question to address is how one can maintain job satisfaction among workers who have a high need for structure. While during the pandemic companies were forced to find ways for their employees to work from home, such as blended working arrangements, after the pandemic ended those companies now find themselves struggling to figure out a way back to the old way of working. This is mainly difficult as large numbers of employees are not keen on working from the office again their entire workweek, since they've experienced the comfort and flexibility that blended working arrangements can offer. But if these companies want to integrate blended working opportunities for their employees, how do they make it equally as effective for the employees regardless of their need for structure? Finding a way to mitigate the individual differences in need for structure could help make opportunities for blended working a more enjoyable and effective way of working for employees regardless of their personal need for structure.

In the current research, I will examine whether this can be achieved through task-oriented leadership. Such style of leadership refers to leaders who initiate structure, define work that has to be done, and maintain standards and deadlines (Bass, 1990). As the name

suggests task-oriented leaders have strong focus on tasks and structure their followers' tasks when it comes to what needs to be done, as well as when it needs to be finished (Breevaart & de Vries, 2021). I aim to test whether a task-oriented leadership style can compensate for the lack of structure BWAs have for people with a high personal need for structure.

Hypothesis 1

Blended working arrangements can have numerous benefits. From extending older people's employability and smoothing the retirement transition to increasing desirable outcomes in the work setting, such as job satisfaction (Gajendran & Harrison, 2007). In blended working arrangements employees have discretion over when and where they work, giving them more freedom of choice and autonomy. Both freedom of choice and autonomy are positively related to job satisfaction (Finn, 2001; Saragih, 2011; Gözükarar and Çolakoğlu, 2016). A study by Fonner and Roloff (2010) found that employees who engage in teleworking frequently are more satisfied than office-based employees. If employees perceive opportunities for blended working, it increases their freedom of choice as they have more discretion as to when and where they work when using those opportunities. And creating workplace conditions where employees feel supported in their own autonomy will lead to higher employee satisfaction (Deci et al., 2017).

Blended working arrangements do not always have a positive effect on job satisfaction however, and at times might even carry risks with them. When employees work away from the office, separated from their colleagues, it could induce feelings of social isolation (Beauregard et al., 2019). And when one is working from home, the challenge of creating a healthy work-life balance naturally becomes more difficult when working and living in the same house. The differences in how employees' job satisfaction is affected by opportunities for blended working arrangements likely arise from individual differences. Wörtler et al. (2021) looked at with whom blended working arrangements cause positive reactions. They

found that the positive effects of blended working (behavioral intentions to benefit the organization) were only present with participants who scored high in autonomy orientation or low in need for structure. Van Yperen (2014) also found that the perceived effectiveness of blended working was negatively related to a need for structure.

My first hypothesis based on this previous research aims to replicate their findings and looks at whether the relationship between perceived opportunity for blended working and job satisfaction is positive, when the worker's need for structure is low.

H1.: Perceived opportunity for Blended Working (OBW) is positively related to job satisfaction, but only if workers' need for structure is low.

Hypothesis 2

It is likely that people who have a high need for structure find the amount of freedom and autonomy they experience when they have discretion over when and where they work uncomfortable. So how can one maintain job satisfaction among employees who have a high need for structure in a blended work setting?

In the current research I aim to test whether leadership style can make a difference. Leaders have been found to have a strong influence on employees and organizational outcomes (Bass, 1990; Yukl 1994). Earlier research by Ehrhart and Klein (2001) found that people with a high need for structure preferred task-oriented leaders over other types of leaders (such as charismatic or relationship-oriented leaders). The current research looks at whether a task-oriented leadership style can compensate for the lack of structure BWAs have for people with a high need for structure. The leadership style of a task-oriented leader is characterized by initiating structure, defining work that has to be done, and maintaining standards and deadlines (Bass, 1990). Task oriented leaders structure their followers' tasks when it comes to what needs to be done, as well as when it needs to be finished (Breevaart & de Vries, 2021). According to person-environment fit theory, outcomes are optimal when the

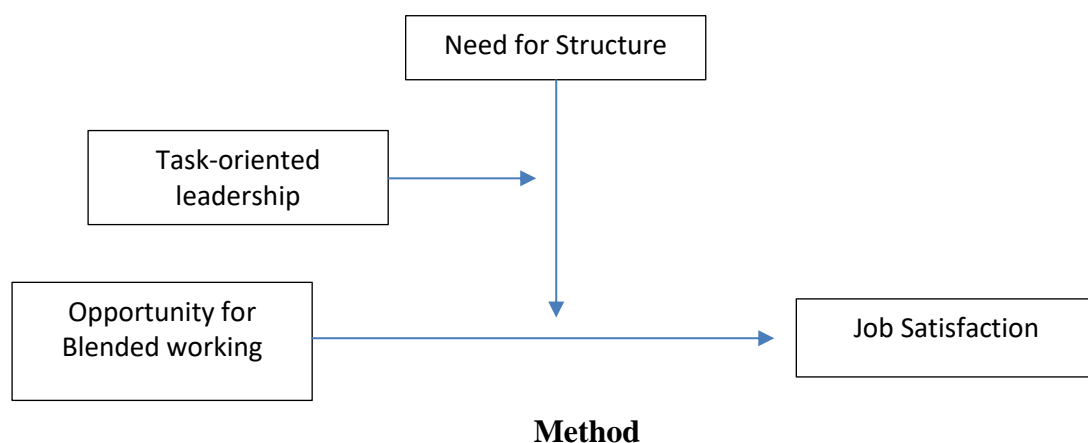
personal needs and environmental attributes are compatible (van Vianen, 2018). If a leader with a task-oriented leadership style can provide a higher amount of structure which employees with a high need for structure need, this should create an optimal outcome in terms of compatibility between person and environment.

In this case the need for structure and the task-oriented leadership style would need to be compatible in order for them to create an optimal outcome. Based on this I expect that a task-oriented leadership style would compensate for the lack of structures employees deal with in blended working arrangements. Therefore, I predict:

H2: Provided workers perceive task-oriented leadership, there is a positive relation between opportunity for blended working and job satisfaction regardless of workers' need for structure.

Figure 1

Visualization of the research model



Participants

We conducted a cross-sectional survey study including a sample of workers. In total, 61 participants (26 males and 35 females) completed the survey and gave consent for their data to be used for research purposes, $M_{age} = 37.3$, $SD_{age} = 13.16$). The participants had different nationalities (39 Dutch, 1 English, 6 German, and 15 with other nationalities) and

had different native languages (40 Dutch, 4 English, 8 German, and 9 had another native language). The most common education level was University (41 participants, 67.2%) followed by Applied science education (8 participants, 13.1%) and Secondary school/High school (6 participants, 9.8%). 6 participants had other education levels (9.8%) varying between practical education and PhD. Of these participants 8 had a leadership position (13.1%, and 53 did not (86.9%). The average number of years participants had been working for their current company was $M = 6.85$ ($SD = 8.29$, minimum 0.1, maximum 40). The average number of years participants had been working at their current position was $M = 4.45$ ($SD = 6.15$, minimum 0.1, maximum 31). They were approached to participate through online announcements posted on social media (LinkedIn, Facebook, and Instagram) as well as posts in WhatsApp groups. The participants were asked to voluntarily fill in a questionnaire distributed using Qualtrics. This questionnaire could be completed either in Dutch or in English. This research was approved by the ethics committee of the Department of Psychology, University of Groningen. The data were analyzed anonymously.

Measures

Personal Need for Structure

This was measured using 12-items scored using a 7-point Likert scale (strongly disagree – strongly agree) ($\alpha = .835$) by Thompson et al. (2001). Examples of these items include: “It upsets me to get into a situation without knowing what I can expect from it.” and “I find that a consistent routine enables me to enjoy life more.”

Task-oriented Leadership

This was measured using a 5-item measure consisting of combined items from Fleishman’s 1953 Initiating structure and De Hoogh & Den Hartog (2008) Role Clarification Scale made by De Vries (2012) ($\alpha = .912$). Examples of these items include: “My supervisor

makes it clear who is responsible for tasks.” and “My supervisor indicates to each member of the team what the scope of their authority is.”

Job Satisfaction

This was measured using a 5-item measure by Brayfield and Rothe (1951) with a 5-point Likert-scale (Strongly disagree – Strongly agree) ($\alpha = .911$). Examples of these items include: “I feel fairly well satisfied with my present job.” and “I find real enjoyment in my work.”

Opportunity for Blended Working

This was measured using a 6-item measure with a 7-point Likert scale (Strongly disagree – Strongly agree) ($\alpha = .864$) developed by Van Yperen et al. (2016). Examples of these items include: “The nature of my job is well-suited to location-independent working” and “Our organization ensures the availability of high-tech ICTs.”

Statistical Analysis Plan

The dataset was first prepared, by removing incomplete answers or participants who did not provide informed consent. After this a descriptive analysis was run to gather some basic information about our sample (gender, age, nationality, etc.).

We needed to run a hierarchical regression so after preparing the dataset and running a descriptive analysis the centered versions of the independent variables were created. We calculated the residuals and used those to check for the assumptions of regression testing (normality, homoscedasticity, linearity, and multicollinearity). After this the interactions between the variables were calculated and used (along with the centered variables) in the main regression analysis to test our hypotheses. The hierarchical regression analysis was run, with job satisfaction regressed on opportunity for blended working, need for structure and leadership style (for the 2nd hypothesis) as well as their interactions. The predictor variables were centered to reduce multicollinearity and multiplied by each other to form the interaction

terms (Aiken & West, 1991). The PROCESS macro developed by Hayes (2022) was used to test the significance of the simple slopes associated with interaction effects. Model 1-3 represent the models used in the analysis for Opportunity for blended working (OBW) – Job satisfaction (JS) (Model 1), OWB-JS with all two-way interactions added (Model 2) and OWB-JS with the three-way interaction added (Model 3)

Results

The assumptions of normality, homoscedasticity, linearity, and multicollinearity for a regression analysis were tested. When testing for normality we found: Standardized Skewness: $Z = \text{Skewness} / \text{Skewness SE} = -.704 / .306 = -2.30$. This falls outside of the ± 1.96 parameter and does not meet the assumption of normality. Testing this with a Shapiro-Wilk test of normality in SPSS gives Job satisfaction a significance score of 0.012 which is lower than the cut-off score of 0.05 and therefore the hypothesis that this data is normally distributed must be rejected.

Hypothesis testing

Table 1 depicts all the significance scores for each model, both main and interaction effects.

Coefficient table of the regression analysis

Table 1

Regression Analysis: Types of Measurement and Study Year

Model	B	SE	t	p
Model 1				
Constant	3.846	.378	10.184	<.001
Opportunity for blended working	-.058	.078	-.742	.461
Model 2				
Constant	3.746	.382	9.802	<.001
Opportunity for Blended working	-.045	.078	-.576	.567
Int. OBW-Leadership Style	-.071	.082	-.868	.389

Int. OBW-Need for Structure	-.239	.090	-2.640	.011*
Int. Leadership Style-Need for Structure	-.163	.111	-1.465	.148
Model 3				
Constant	3.759	.388	9.682	<.001
Opportunity for blended working	-.047	.079	-.597	.553
Int. OBW-Leadership Style	-.081	.090	-.896	.374
Int. OBW-Need for Structure	-.242	.092	-2.631	.011*
Int. Leadership Style-Need for Structure	-.178	.126	-1.418	.162
Int. NFS – OBW – Leadership style	.023	.087	.268	.789
Model summary	R	R ²	SE	
Model 1	.096	.009*	.93640	
Model 2	.397	.158	.88610	
Model 3	.399	.159	.89354	

*Note. total N = 61. Int = Interaction; OBW = Opportunity for Blended working; NFS = Need for Structure; SE = Standard error of estimate; Leadership Style = Task oriented leadership style; * Significant at $\alpha = 0.05$*

Means, Standard deviations, and correlations

Table 2

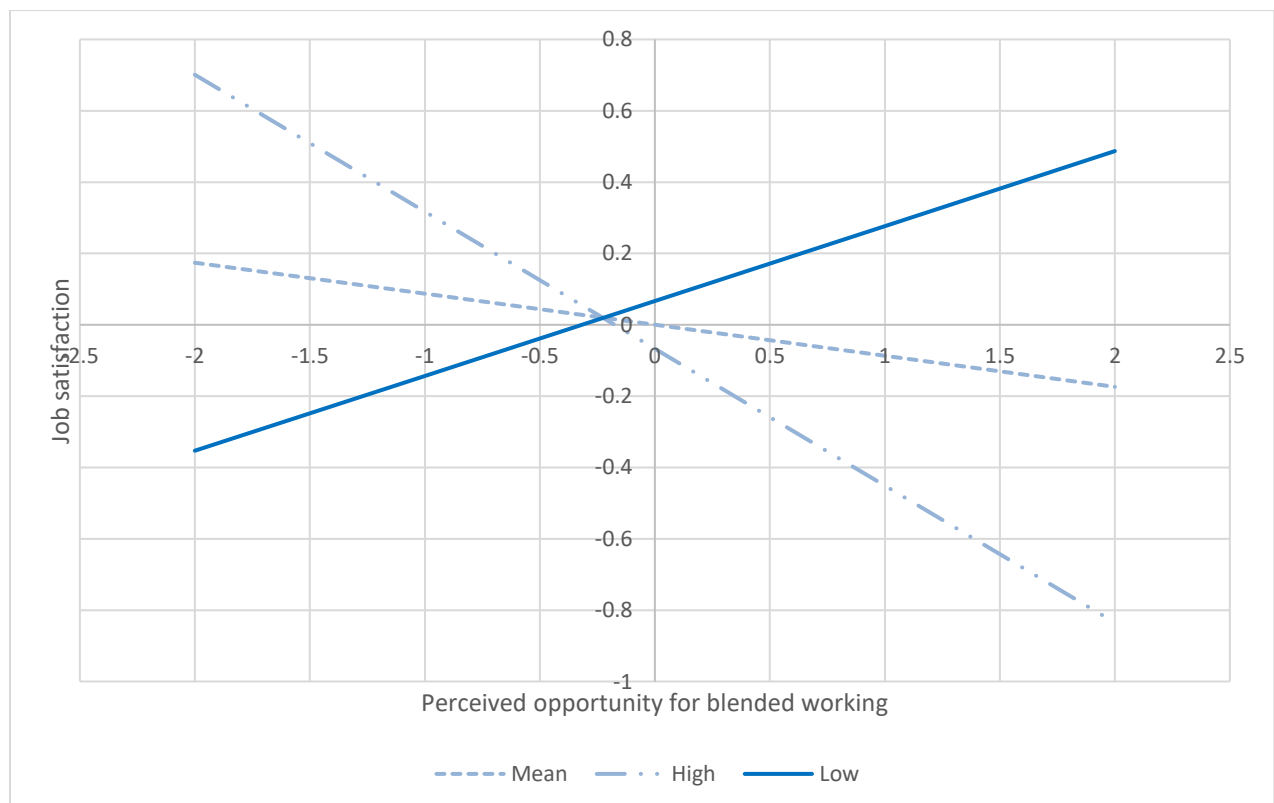
	<i>M</i>	<i>SD</i>	1	2	3	4
Job satisfaction	3.58	0.932	-			
OBW	4.573	1.543	-0.096	-		
NFS	4.187	0.95	-0.098	-0.056	-	
Leadership Style	3.245	0.977	0.280	-0.201	0.003	-

Note. Total N = 61, M = mean; SD = Standard deviation; OBW = Opportunity for Blended working; NFS = Need for Structure; Leadership Style = Task oriented leadership style

As shown in Table 1, we found no significant main effects between the variables job satisfaction and opportunity for blended working $\beta = -.058$, $t(59) = -.742$, $p < .461$, $R^2 = .009$. The first hypothesis was that opportunity for blended working was positively related to job satisfaction, but only if the need for structure was low. It makes sense that we did not find any significant relationship between opportunity for blended working and job satisfaction as we expected this relationship to be contingent on the need for structure variable. The interaction effect between opportunity for blended working and need for structure was significantly negative $\beta = -.239$, $t(56) = -2.640$, $p < .011$, R^2 of .158. This interaction effect is visualized in Figure 2. It shows the association between opportunity for blended working and job satisfaction at high, average, and low levels of need for structure.

Figure 2

Interactive effect of Need for Structure and perceived opportunity for blended working on job satisfaction



Note: Low and high reflect a value of 1 Standard Deviation below and above the mean respectively.

Figure 2 shows that participants who scored high (one standard deviation above the mean) in need for structure indicated having lower job satisfaction when they perceived more opportunities for blended working, whereas the participants who scored low (one standard deviation below the mean) in need for structure indicated having higher job satisfaction when offered more opportunity for blended working.

When calculating the significance of these slopes we found that both the slopes for mean and low scores of need for structure were insignificant, meaning they did not fall outside of the parameters of random chance of us finding these results (mean NFS score slope significance: $\beta = -.052$, $t(57) = -.689$, $p = .493$, -1 SD NFS scores of slope significance $\beta = .138$, $t(57) = 1.218$, $p = .228$). The slope for high (+1 SD) scores of need for structure was significant with $\beta = -.243$, $t(57) = -2.25$, $p = 0.026$. This means our first hypothesis is not supported.

The second hypothesis tested whether there is a positive relation between opportunity for blended working and job satisfaction regardless of workers need for structure, provided they perceive task-oriented leadership style. As table 1 shows there was no interaction effect found $\beta = .023$, $t(55) = .268$, $p < .789$ with an R^2 of .159. Therefore, the second hypothesis was not supported.

Discussion

The results of this study provide evidence that perceived opportunity for blended Working (OBW) is negatively related to job satisfaction, but only if workers' need for structure is high. This is a slight deviation from our initial hypothesis, in which we expected perceived opportunity for blended working to be positively related to job satisfaction, but only if need for structure is low (H1). We found an interaction in line with this hypothesized

prediction. But when looking closer at this interaction between opportunity for blended working and need for structure we found there to be a significantly negative relationship for people who scored high in need for structure as visible in figure 2. Here we can also see that the slope for people who score low in need for structure is positive, which is in line with our expectations (H1), however this was not significantly positive, therefore we cannot claim there to be a significant positive relationship there, and although the pattern is in line with our expectations, our first hypothesis was not supported.

Our findings do add further support to the in previous research alluded to notion that the effectiveness of blended working opportunities regarding employee wellbeing (job satisfaction in our case) is contingent on the strength of that employee's personal need for structure. The results are similar to those of Van Yperen et al. (2014) who found a negative relationship between the perceived effectiveness of both time- and location independent working and need for structure at work (however they did not investigate a moderation effect and used different variables, such as Perceived personal effectiveness of blende working where we used Perceived opportunity for blended working). Our results are consistent with Wörtler et al. (2021) who found positive reactions to blended working arrangements only among employees who scored low in personal need for structure. In the Van Yperen paper (2014) the focus is on the workers' perception of blended working effectiveness, but not the degree to which blended working contributes to workers' wellbeing. The paper by Wörtler at al. (2021) presents the results of two vignette studies which looked at blended working in relation to organizational attractiveness, however this study looks at anticipated blended working, not actual opportunities for blended working. The current study adds to this line of research by looking at employee's job satisfaction based on their perceived opportunity for blended working. The current research also looked at perceived opportunity for BW instead of anticipated BW our results reflect an employee's actual experience and not what they

anticipate they'll experience. Doing this helps us gain insights into the effect such opportunities might have on employees and allows us to better advise employers on how to adapt the opportunities for blended working they give to their employees to optimize its effectiveness for employees with different personal need for structure.

There was no evidence to suggest that if workers perceive task-oriented leadership, there is a positive relation between opportunity for blended working and job satisfaction regardless of workers' need for structure (H2). In the research done by Ehrhart and Klein (2001) they did find that people with a high need for structure preferred task-oriented leaders over other types of leaders, however, they also mention that if one values interpersonal relations, has a low self-esteem, or like to take risks, they are unlikely to be attracted to task-oriented leaders. The reasons for this vary from not feeling a task-oriented leader will be able to meet their needs for emotional support to believing that such a leader's values will differ from their own. Perhaps in future, focusing on these other values might prove useful for research looking at the relationship between personal needs and leadership styles.

Practical implications

Our findings combined with those of Wortler (2021) and Van Yperen (2014) show a growing amount of evidence supporting the notion that individual differences in personal need for structure has an impact on blended working arrangements. Based on this the main advice we can give employers is to be aware of the differences in individual need for structure their employees might have and the effect these differences can have on the effectiveness of different work settings. Perhaps discussing with employees how many opportunities for blended working are comfortable with using and accommodating for those needs. The people with a low need for structure could make use of the option to (for example) work from home multiple days a week, whereas employees with a high need for structure might prefer to only work one day at home, and the rest of the week to work from their office. If an employee's

needs are fulfilled it contributes to their job satisfaction (Ilies et al., 2018), which in turn is positively related to productivity (Argyle, 1989).

Limitations

There are various explanations for these non-significant findings. One such explanation is that we had a rather small sample size, leading to a lack of statistical power and therefore a larger chance of committing a type 2 error. Our sample size was only 61 where we would have wanted it to be at least twice as large to increase our statistical power. This small sample size is also a likely explanation as to why, when testing for the assumption of normality, our data failed to meet this assumption. In the case of our second hypothesis, drawing inspiration from the work of Ehrhart and Klein (2001) by also considering other factors that might influence an employee's relation to their task-oriented leader (such as measuring their self-esteem or how much they value interpersonal relations) might help. It could very well be that an employee has a high need for structure which should increase their compatibility with a task-oriented leader, but also have a very low self-esteem, which in turn could decrease or perhaps even nullify the compatibility with such a leadership style. In our current study we only looked at the personal need for structure, but not at the possibility of other factors influencing the relationship between need for structure and task-oriented leadership.

Notwithstanding these limitations, our results are in line with our expectations regarding the moderating role of an employee's personal need for structure in the relationship between opportunity for blended working and job satisfaction. It adds to previous research done by van Yperen et al. (2014) and Wörtler et al. (2021) by using job satisfaction as outcome variable and providing support for the hypothesis that need for structure moderates the relationship between opportunity for blended working and job satisfaction, where instead of anticipated blended working we used actual opportunity for blended working.

Future research and conclusion

In terms of future research, it would be useful to extend the findings of the current research by combining the research done on the effectiveness of blended working seeming to be moderated by employee's personal need for structure (e.g. Wörtler et al., 2021) and research that looks at which leadership style is preferred by people with a high personal need for structure (Ehrhart & Klein (2001). As mentioned in the section above, focusing on other factors than only need for structure (such as self-esteem and value of interpersonal relations) when looking at what the effect of task-oriented leadership style is could prove useful. Perhaps then one might gain an insight in whether a different style of leadership might be effective depending on the degree to which people with a high personal need for structure actually make use of blended working arrangements provided by their employer. Would an employer be best of using different leadership styles depending on how much structure the environment of the employee provides them with, this could for example differ in a more structured environment (traditional office) or a less structured environment (when working from home).

Despite the limitations (possibly due to a small sample size) this research takes an initial step towards integrating the lines of research involving personal needs, working arrangements as well as leadership styles. Hopefully these three concepts will be the combined subject of further studies so we may learn more about how we can most effectively integrate blended working arrangements for people with different individual needs.

References

- Aiken, L. S., & West, S. G. (1991). Multiple regression: Testing and interpreting interactions. Thousand Oaks, CA: US: *Sage Publications, Inc.*
- Argyle, M. (1989). Do happy workers work harder? The effect of job satisfaction on work performance. *How harmful is happiness*, 94-105.
- Bass, B. M. (1990). From Transactional to Transformational Leadership: Learning to Share the Vision. *Organizational Dynamics*, 18, 19-32. [http://dx.doi.org/10.1016/0090-2616\(90\)90061-S](http://dx.doi.org/10.1016/0090-2616(90)90061-S)
- Beauregard, T. A., Basile, K. A., & Canónico, E. (2019). Telework: Outcomes and facilitators for employees. In R. N. Landers(Ed.), *The Cambridge handbook of technology and employee behavior* (pp. 511–543). Cambridge University Press.
- Brayfield, A.H. & Rothe, H.F. (1951). An index of job satisfaction. *Journal of Applied Psychology*, 35, 307-311.
- Breevaart, K., & de Vries, R. E. (2021). Followers' hexaco personality traits and preference for charismatic, relationship-oriented, and task-oriented leadership. *Journal of Business and Psychology*, 36(2), 253–265.
- de Hoogh, A. H. B., & den Hartog, D. N. (2008). Ethical and despotic leadership, relationships with leader's social responsibility, top management team effectiveness and subordinates' optimism: A multi-method study. *The Leadership Quarterly*, 19, 297-311. <https://doi.org/10.1016/j.leaqua.2008.03.002>
- de Vries, R. E. (2012). Personality predictors of leadership styles and the self-other agreement problem. *The Leadership Quarterly*, 23(5), 809–821. <https://doi.org/10.1016/j.leaqua.2012.03.002>
- De Vries, R. E., Roe, R. A., Taillieu, T. C. B. (1998). Need for supervision: its impact on leadership effectiveness. *Journal of Applied Behavioral Science*

- Deci, E. L., Olafsen, A. H., & Ryan, R. M. (2017). Self-determination theory in work organizations: The state of a science. *Annual Review of Organizational Psychology and Organizational Behavior*, 4, 19–43. <https://doi.org/10.1146/annurev-orgpsych-032516-113108>
- Diab-Bahman, R. and Al-Enzi, A. (2020), "The impact of COVID-19 pandemic on conventional work settings", *International Journal of Sociology and Social Policy*, Vol. 40 No. 9/10, pp. 909-927. <https://doi.org/10.1108/IJSSP-07-2020-0262>
- Ehrhart, M. G., & Klein, K. J. (2001). Predicting followers' preferences for charismatic leadership: The influence of follower values and personality. *The Leadership Quarterly*, 12, 153–179.
- Finn, C. P. (2001). Autonomy: an important component for nurses' job satisfaction. *International Journal of Nursing Studies*, 38(3), 349–357.
[https://doi.org/10.1016/S0020-7489\(00\)00065-1](https://doi.org/10.1016/S0020-7489(00)00065-1)
- Fleishman, E. A. (1953). The description of supervisory behavior. *Journal of Applied Psychology*, 37(1), 1–6. <https://doi.org/10.1037/h0056314>
- Fonner, K. L., & Roloff, M. E. (2010). Why teleworkers are more satisfied with their jobs than are office-based workers: when less contact is beneficial. *Journal of Applied Communication Research*, 38(4), 336–361.
<https://doi.org/10.1080/00909882.2010.513998>
- Gajendran, R. S., & Harrison, D. A. (2007). The good, the bad, and the unknown about telecommuting: Meta-analysis of psychological mediators and individual consequences. *Journal of Applied Psychology*, 92(6), 1524–1541. <https://doi-org.proxy-ub.rug.nl/10.1037/0021-9010.92.6.1524>

- Hayes, A. F. (2022). Introduction to mediation, moderation, and conditional process analysis: a regression-based approach (Third, Ser. Methodology in the social sciences). *Guilford Press*
- Ilies, R., Lanaj, K., Pluut, H., & Goh, Z. (2018). Intrapersonal and interpersonal need fulfillment at work: differential antecedents and incremental validity in explaining job satisfaction and citizenship behavior. *Journal of Vocational Behavior, 108*, 151–164. <https://doi.org/10.1016/j.jvb.2018.07.005>
- İzlem Gözükara, Nurdan Çolakoğlu, The Mediating Effect of Work Family Conflict on the Relationship between Job Autonomy and Job Satisfaction, *Procedia - Social and Behavioral Sciences, Volume 229, 2016, Pages 253-266, ISSN 1877-0428*, <https://doi.org/10.1016/j.sbspro.2016.07.136>.
- Saragih, Susanti. (2011). The Effects of Job Autonomy on Work Outcomes: Self Efficacy as an Intervening Variable. *International Research Journal of Business Studies. 4*. 203-215. [10.21632/irjbs.4.3.203-215](https://doi.org/10.21632/irjbs.4.3.203-215).
- Spector, P. E. (1997). Job satisfaction: Application, assessment, causes, and consequences. Sage Publications, Inc.
- Thompson, M. M., Naccarato, M. E., Parker, K. C. H., & Moskowitz, G. B. (2001). The personal need for structure and personal fear of invalidity measures: Historical perspectives, current applications, and future directions. In G. B. Moskowitz (Ed.), *Cognitive social psychology: The Princeton Symposium on the Legacy and Future of Social Cognition* (pp. 19–39). Lawrence Erlbaum Associates Publishers.
- Van Yperen, N. W., Rietzschel, E. F., De Jonge, K. M. M. (2014) Blended Working: For Whom It May (Not) Work. *PLOS ONE 9(7)*: e102921. <https://doi.org/10.1371/journal.pone.0102921>

Van Yperen, N. W., Wörtler, B., & De Jonge, K. M. M. (2016). Workers' intrinsic work motivation when job demands are high: the role of need for autonomy and perceived opportunity for blended working. *Computers in Human Behavior*, *60*, 179–184.

<https://doi.org/10.1016/j.chb.2016.02.068>

van Vianen, A. E. M. (2018). Person-environment fit: a review of its basic tenets. *Annual Review of Organizational Psychology and Organizational Behavior*, *5*, 75–101.

<https://doi.org/10.1146/annurev-orgpsych-032117-104702>

Wörtler, B., Van Yperen, N.W., Barelds, D.P.H. (2021) Do blended working arrangements enhance organizational attractiveness and organizational citizenship behaviour intentions? An individual difference perspective, *European Journal of Work and Organizational Psychology*, *30*(:4), 581- 599, DOI: 10.1080/1359432X.2020.1844663

Yuki, G. (1994). *Leadership in organizations* (3rd ed.). Englewood Cliffs, NJ: Prentice Hall.