# Leisure crafting of teleworkers: How Leisure Cafting Influences Well-Being, Mediated by Work-Life Conflict

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#### Abstract

Through the sustained trend of digitalization, the relevance of remote working continues to grow. However, the effects of teleworking on subjective well-being (SWB) are not yet clear. To better fathom these effects, it is necessary to consider alternative aspects that might be relevant to a worker's well-being in the context of the recent shift to telework. In particular, teleworkers' engagement in leisure crafting or their family construct should be taken into account as these are related to need satisfaction and thus to their SWB. Based on the self-determination theory (Ryan & Deci, 2000) and the spillover theory (Stains, 1980), this study, therefore, examines the effect of engagement in leisure crafting on the SWB of teleworkers. Additionally, it is investigated whether the relationship between leisure crafting and SWB is mediated by work-life conflicts. Results of this cross-sectional online study (N = 58, collected via convenience sampling) showed no significant effect of engagement in leisure crafting on SWB (z = 0.32, p = .751). Based on this study, it might be that the involvement in leisure crafting of teleworkers has little effect on their SWB. Limitations, including the studies' small sample size as well as limited generalizability, could constitute some reasons and will be further outlined.

*Keywords:* leisure crafting, telework, work-life conflict, self-determination theory, spillover theory

# Leisure crafting of teleworkers: How Leisure Crafting Influences Well-Being, Mediated by Work-Life Conflict

The concept of telework has been known and used since the 1970s. At this point, only 2.6% (3.3 million) of the US employees, excluding self-employed and volunteers, worked primarily from home (Allen et al., 2015). Due to the continued growth of digitalization and globalization, the demand for flexible work arrangements intensifies. By 2006, the number of employees engaging half of the working hours in telework rose to 45 million in America alone (Gajendran & Harrison, 2007). Telework, also referred to as flex-time work or remote work, can be defined as an alternative work arrangement where an employee's primary work location is not the organization's collective office space, but rather their private home (Gajendran & Harrison, 2007). Information and communication technologies, such as computers or tablets, are thereby used to interact with others inside and outside of the organization (Boell et al., 2016; Gajendran & Harrison, 2007).

The onset of the Covid-19 pandemic in 2020 increased the relevance and popularity of telework even more. This has been particularly evident in Europe. While only 17% of the workforce in the EU engaged in teleworking before the pandemic, the number jumped to 48% (Sostero et al., 2020). However, the Covid-19 pandemic has revealed more long-lasting trends than just the ability for employees to engage in telework. Recent surveys demonstrate that 63% of the US, and 87% of the EU workers, who had to switch from office work to home office, would prefer to engage at least part-time in telework after the pandemic (Mikula, 2020). This aligns with the expectation that the majority of companies will shift to telework post-pandemic. More than 74% of companies have indicated their intention to telework permanently, and by 2025, 70% of the global workforce is expected to work from home at least five days per month (Castrillon, 2020).

While the global workforce shows great interest in telework, companies such as Yahoo (Heatherman & O'Rourke, 2013), Apple, or Google encourage employees to return to collective office spaces as this improves the work culture and interaction between colleagues (Allen et al., 2015). These differing opinions regarding telework give rise to the question of why some companies and employees support telework, while others reject it.

The telework paradox might be one of the underlying reasons why the opinions regarding telework differ (Gajendran & Harrison, 2007). The paradox highlights contradictory research findings regarding the effects of telework on aspects such as the balance of work and private life (Boell et al., 2016). While some studies indicated beneficial effects of telework like reduced distractions, increased flexibility, or an improved work-life balance (Allen et al., 2015; Boell et al., 2016; Delanoeije et al., 2019), others suggested negative consequences such as heightened feelings of social isolation or blurred boundaries between work and private life, causing conflict and a decrease in subjective well-being (SWB) (Bjursell et al., 2021; Boell et al., 2016; Kosenkranius et al., 2020; Mann & Holdsworth, 2003).

These inconsistent research findings as well as the increasing relevance of telework highlight the need for future research in the area of teleworkers' well-being. Although studies have increasingly addressed these contradictory research findings, the main focus has been on work-life balance and teleworkers' general subjective well-being, defined as the overall evaluation of one's life (Diener, 2009; Diener et al., 1999; Kosenkranius et al., 2020). This led to a shortcoming of research dealing with other important aspects of life such as leisure time activities (de Bloom et al., 2020). In particular, the rather new concept of leisure crafting, which can be understood as the proactive pursuit and engagement in leisure activities that aim to satisfy psychological needs (Petrou & Bakker, 2016), is almost unexplored in the context of telework.

The lack of knowledge about whether teleworkers' engagement in leisure crafting affects their SWB leads to a disintegrative and thus simplistic approach to teleworkers' need satisfaction. That is, the different life domains (e.g., work domain, family domain) of teleworkers are not seen as distinct and independent from each other. Thus, it is not possible to understand if and how the different spheres of life influence SWB. Furthermore, this entails that restricted consideration is given to the potential interactions between the different life domains, e.g., through the transmission of (un)satisfied needs (de Bloom et al., 2020). This limits the spectrum of potential coping strategies that could compensate for possible adverse effects of telework, which could be one reason for the telework paradox.

This paper thus aims to address the present research gap while answering the question of how the engagement of teleworkers in leisure crafting can improve subjective well-being. Additionally, this paper will consider work-life conflict as a possible mediator for the relationship between leisure crafting and life satisfaction.

#### Life Satisfaction

On average, a person spends 1,687 hours per year working (OECD, 2022). Consequently, the way of work affects the lives of employees, both in the workplace and outside of working life. This implies that teleworking has a strong influence on the professional and personal spheres, which, consequently influences subjective well-being. Thereby, subjective well-being refers to the evaluation of a person's life satisfaction as a whole, including emotions and different life domains (Diener, 2009; Diener et al., 1999). It should be highlighted that SWB does not constitute a state but rather a development which is affected by all life events and progressions within an individual's life (Kopsov, 2019). This assumption is amplified by the bottom-up theory. This theory suggests that SWB is influenced by events in different spheres of life, such as the work domain or family life (Diener, 2009).

Based on the assumption that SWB is affected by many life spheres, SWB is influenced by the sum of three components: cognitive life satisfaction, negative affect and positive affect (Diener et al., 1999). The affects refer to positive or negative emotions, while cognitive life satisfaction describes the subjective assessment of different areas of life such as work or family. Although all three components influence subjective well-being, life satisfaction drives the desire for change and is, therefore, the most relevant to understand the engagement in leisure activities (Diener et al., 1999; Kosenkranius et al., 2020). This is because people in a negative state of SWB are most likely to change their leisure activities to increase their SWB (Kosenkranius et al., 2020). For this reason, this study focuses on the life satisfaction component of SWB.

Another conceptual framework that explains SWB is the self-determination theory by Ryan and Deci (2000). This theory states that people engage in certain behaviours, such as leisure crafting, to satisfy their innate psychological needs of autonomy, competence, and relatedness. Whereas autonomy refers to the control over one's behaviour, competence refers to the acquiring and mastery of skills, while relatedness describes the need to belong (Kujanpää et al., 2020; Ryan & Deci, 2000). Research suggests that if these needs are largely satisfied, people are more likely to experience an increased sense of SWB (Kosenkranius et al., 2020). However, if the needs are not satisfied or only to a certain extent, an individual might perceive a limited sense of SWB (Diener et al., 1999). Even so, as research findings vary regarding the impact of telework on need satisfaction and SWB, it is not clear whether telework contributes to or detracts from need satisfaction. It is therefore also not clear whether potentially unsatisfied needs in one domain of life (e.g., the work domain) can be satisfied in another domain, e.g., through leisure activities.

The spillover theory by Stains (1980) provides a theoretical background to explain the impact of telework on the different domains of life and hence the life satisfaction of teleworkers. This conceptual framework implies that experiences in one domain can be transferred to another domain. It is thereby possible to transfer either positive or negative emotions between life domains, ultimately causing an increase or decrease in subjective wellbeing (Zhang et al., 2020). As a consequence, this would imply that the higher the permeability of the boundary between the domains, the higher the probability of that spillover. This is why, according to the boundary theory, individuals strive to create and maintain boundaries between their different domains of life (Ashforth et al., 2000). If this border

becomes porous, a transition between the domains is more likely (Delanoeije et al., 2019). Thus, in comparison to office work, telework ensures a higher permeability of the boundary between work and private life, as the worker's home serves not only private purposes but also comprises central working and office functions. This naturally increases the possibility of spillovers between these spheres, ultimately influencing SWB (Zhang et al., 2020).

#### **Leisure Crafting**

A potential way to balance work life with private life and thus avoid negative spillover effects between the spheres and enhance positive spillover effects is to engage in leisure crafting. It refers to the proactive aspiration to engage in leisure activities aiming to satisfy the needs of autonomy, competence, and relatedness (Deci & Ryan, 2000; Petrou & Bakker, 2016). Thereby, the focus to create meaning and learning is crucial (Petrou & Bakker, 2016). In line with the compensation hypothesis, which assumes that people compensate for unmet needs in one area of life in another (Vallerand, 2000), studies have found that the engagement in leisure crafting can compensate for unmet needs in the work area via positive spillover (Hewlett et al., 2017; Petrou & Bakker, 2016). The likelihood of compensation increases further given that the domain being compensated for does not provide the freedom to fulfil the needs (Petrou & Bakker, 2016). This is supported by studies which have found increased engagement in leisure crafting when the workspace did not facilitate need satisfaction (Berg et al., 2010). Therefore, a lack of self-perceived competency in the work domain can be counterbalanced by mastering leisure activities. Additionally, leisure crafting can provide a feeling of autonomy by being able to allocate personal resources independently which might not be possible in the work domain. The need for relatedness can be fulfilled by engaging in e.g., group activities which foster meaningful relationships (Abdel Hadi et al., 2021; Biron et al., 2022).

Relating the impact of need satisfaction and thus, positive or negative spillover, between life domains to the life satisfaction of teleworkers, it can be said to influence their SWB (Sirgy et al., 2019). This means that unmet needs in one domain e.g., the work domain, not only have a negative impact on well-being within the work domain, but also on the general well-being of teleworkers (negative spillover). Vice versa, fulfilled needs in the private domain, through engagement in leisure crafting, have a positive impact not only on private life but also on general well-being (positive spillover).

This can be explained by the active striving to satisfy otherwise unmet needs as it relates to the innate human wish of SWB (de Bloom et al., 2020). It is expected that the more needs in an area of life, e.g., in working life, cannot be fulfilled, the greater the likelihood that a person will try to compensate for the respective need in another area of life, e.g., through the engagement in leisure crafting (Kosenkranius et al., 2020). Consequently, the engagement in leisure crafting aims and contributes to life satisfaction by compensating otherwise unmet needs through positive spillover across domains. Furthermore, the positive experiences of need satisfaction in private life can be transferred to the work domain (positive spillover), buffering possible negative spillover of unmet needs in this domain. Minimizing or even completely preventing a potential negative spillover from work to private life through engaging in leisure crafting might have a positive impact on the SWB of teleworkers by facilitating the maintenance of the boundary between these two spheres of life (Biron et al., 2022). Thus, applying the self-determination theory by Ryan and Deci (2000) in combination with the spillover theory by Stains (1980) to the effects of leisure crafting on life satisfaction, I expect that

**Hypothesis 1**: higher engagement in leisure crafting is positively associated with the subjective well-being of teleworkers (see Figure 1).

# **Work-family Conflict**

While the association between leisure crafting and subjective well-being appears to be well established, it is not entirely clear how this relation can exist and whether there are underlying factors influencing it. A possible explanation for this association is that the practice of leisure crafting reduces the negative impact between the private domain and the work domain through spillover need satisfaction. This in turn minimizes the likelihood of conflicts between work roles and private roles (Biron et al., 2022). Thereby, a role in either domain refers to the demands of an individual within this domain (Jang & Zippay, 2011). The interaction between work and private life includes work-life balance which describes a minimum or the absence of conflict between work roles and private life roles. It includes individually perceived satisfaction with an individual's time and work (Jang & Zippay, 2011).

Work-life interaction also includes the bidirectional construct of work-life conflict (WLC). It can be defined as interference between work roles and private life roles (Jang & Zippay, 2011). The interference of private life roles with work roles is called life-work conflict (LWC; Jang & Zippay, 2011). A subtype of this inter-role conflict is work-family conflict (WFC). It describes the specific conflict that arises when the work demands (e.g., long working hours) of an individual interfere with the demands of the family role (e.g., picking up children from school, taking care of elderly family members etc.; Kossek & Lee, 2017). This conflict can also occur the other way around, called family-work conflict (FWC), in which family role demands interfere with the demands of the work role. However, this conflict is less common than the WFC (Kossek & Lee, 2017).

Many studies support the notion that teleworking has a positive impact on autonomy and flexibility as the demands of private life (e.g., picking up children from school or engaging in leisure crafting) are better balanced with the demands of work and vice versa. Inevitably, this allows for the satisfaction of competence needs, since roles and needs can be fulfilled in both areas of life (Versey, 2015). Consequently, this would further have a positive impact on the work-life balance and thus improve the SWB of teleworkers (Abendroth & den Dulk, 2011; Abendroth et al., 2012; Delanoeije et al., 2019).

Nevertheless, the needs are more likely to be satisfied, if the employee manages to maintain a natural and equilibrated work-life balance. If this is not the case, needs are not met,

leading to lower life satisfaction (de Bloom et al., 2020). This is supported by studies that have found negative effects of teleworking on work-life balance as telework enhances the conflict between private life and work-life (see e.g., Kelliher & Anderson, 2010; Kossek & Lee, 2017; Zhang et al., 2020). For example, employees might be tempted to engage in work after office hours or get distracted by family-related tasks during work, thus performance in both areas is inadequate, jeopardising the need for competence (Delanoeije et al., 2019; Sirgy et al., 2019). Therefore, telework seems to minimize the boundaries between private life and work life, facilitating the possibility of negative spillover and a work-life conflict (Zhang et al., 2020). This negatively affects SWB (Sirgy et al., 2019).

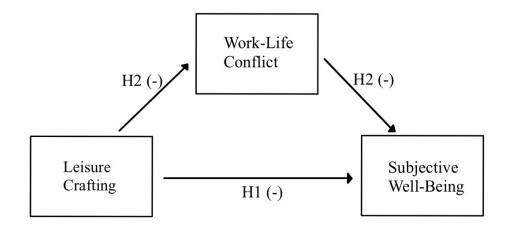
As already argued above, engaging in leisure crafting is a possible way to actively maintain the work-life balance. This is possible because engagement in leisure crafting allows the maintenance of a barrier between private and work life as unsatisfied needs in the work domain can be compensated for (Gravador & Teng-Calleja, 2018; Vallerand, 2000). Thus, negative spillover is more likely to be controlled and avoided as the need for autonomy could be satisfied by being able to organize one's own leisure time. Furthermore, the need for relatedness can be met through family bonding activities while the need for competence could be fulfilled through the successful maintenance of a work-life balance (Biron et al., 2022). Consequently, the possibility of a work-life conflict gets minimized (de Bloom et al., 2020). The absence of the conflict in turn would have a positive effect on the life satisfaction of the teleworker (Taşdelen-Karçkay & Bakalım, 2017).

It can therefore be assumed that teleworkers minimize the negative spillover between different life domains by engaging in leisure crafting, while positive spillover would be maximised. This reduces the likelihood of a WLC which improves the teleworker's subjective well-being (Sirgy et al., 2019). Therefore, I expect that:

**Hypothesis 2**: Work-family conflict mediates the relationship between leisure crafting and subjective well-being (see Figure 1).

#### Figure 1

Overview of Hypothesis



Method

## **Ethics statement**

The ethical approval for this study was granted by the Ethical Committee Psychology associated with the Faculty of Behavioural and Social Science of the University of Groningen, the Netherlands.

### **Participants**

The data was obtained via snowballing within our personal networks. Overall, this resulted in a convenience sample of 108 participants. The selection criteria implied a minimum of 20 working hours per week of which at least 15% must be completed at home (e.g., in a home office). Additionally, participants needed to understand written English. Respondents who did not fulfil these criteria were excluded from the study. Individuals who did not provide answers to at least half of the questions were excluded. Hence, the data of 47 participants were removed. This resulted in a valid sample size of 61 participants with 31 (50.8%) participants indicated being female, and 30 (49.2%) indicated being male. The participants' ages ranged from 18 to 74 years with the most prevalent age groups being 25-34 (31,1%) and 45-54 (31,1%). Most of the participants are momentarily living in Germany (68.9%) or the Netherlands (11.5%). 8,1% stated to live outside of the EU. The majority of

participants have a bachelor's (31%) or master's (44%) degree and work in healthcare or social service (16%), information technology (16%), or finance (13%). Participants' average work hours are 41 hours per week, of which an average of 28.5 hours are worked from home.

#### **Materials and Instruments**

This study was conducted in a joint project. Therefore, additional scales which are not part of this study were included in the questionnaire and used to measure the concepts of need satisfaction, perceived work productivity, psychological detachment and meaningful work. For simplicity, only scales relevant to this thesis are described and analysed.

#### Leisure crafting

The independent variable, leisure crafting, was measured with the nine-item scale by Petrou and Bakker (2016). Participants had to assess the items on a five-point Likert scale (1 = not at all, 5 = very much). The items can be found in Appendix A. The scale can be considered reliable (Cronbach's  $\alpha$  = .84). Participants reported overall a medium engagement in leisure crafting (M = 3.8, SD = 0.6).

#### Life Satisfaction

The dependent variable, subjective well-being, was measured with the five-item scale by Diener et al. (1985) which measures subjective life satisfaction. Participants had to assess the items on a seven-point Likert scale ( $1 = strongly \ disagree$ ,  $7 = strongly \ agree$ ). The items can be found in Appendix A. The scale can be considered reliable (Cronbach's  $\alpha = .88$ ). Participants reported overall high life satisfaction (M = 5.1, SD = 1.1) which translates to a high level of subjective well-being.

#### *Work-life conflict*

The mediating variable, work-life conflict was measured with the ten-item scale by Haslam et al. (2014) which was developed as a shorter alternative to the commonly used scale by Carlson et al. (2000). The Work-Family Conflict Scale (WFCS) by Haslam et al. (2014) provides a bidirectional measurement, including five items to measure work-family conflict and five items to measure family-work conflict. Participants had to assess the items on a seven-point Likert scale (1 = *very strongly disagree*, 7 = *very strongly agree*). Additionally, the option 'not applicable' was provided. The items can be found in Appendix A. The scale can be considered reliable (Cronbach's  $\alpha$  = .84). The participants reported an overall low work-life conflict (M = 2.8, SD = 1.2). The individual indication of experienced work-family conflict was low (M = 3.1, SD = 1.3) while the experienced family-work conflict was also low (M = 2.4, SD = 1.4).

#### Validation Question

To ensure the participants are reading the questions carefully, an attention check question was integrated (*please click strongly agree*). Participants indicated their answers on a seven-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*) and an additional answer option was provided if none of the options applied (*does not apply*). The validation question can be found in see Appendix A.

#### **Research Design and Procedure**

We designed a cross-sectional study which was affirmed before the data collection process by the Ethics Committee of Psychology of the University of Groningen. Between the 3rd of May and the 27th of May of 2022, participants were recruited via snowballing, particularly through social networks such as WhatsApp or LinkedIn. The participation was voluntary and no monetary or other compensation was provided. The questionnaire was designed to take fifteen to twenty minutes and to be completed within one session. All materials were in English. The participants received a link which took them to the online survey platform Qualtrics. Opening the link, participants were presented with the purpose of this study and the statement of informed consent, stating that their data would remain anonymous and will be deleted after May of 2032. Participants had to agree to this statement to begin with the questionnaire. After obtaining informed consent, participants could start providing answers to the scales measuring leisure crafting, life satisfaction and work-family or family-work conflict. Following that, participants were asked to indicate demographic data. Lastly, respondents had the opportunity to receive the findings of the study and end the questionnaire.

# Strategy of analysis

The statistical analysis was conducted in SPSS version 28.0.1.0. Additionally, the extension Progress v4.1 (Hayes, 2022) was installed. Before the hypothesis analysis, the demographic data was assessed using a frequency analysis which included the calculation of means, standard deviations, correlations, and percentiles. To test the effect of engagement in leisure crafting on the SWB of teleworkers (H1), a linear regression was performed. The mediation effect of work-life conflict on the relationship between leisure crafting and SWB (H2) was evaluated using the Sobel test in the Progress v4.1 SPSS extension (Hayes, 2022; Sobel, 1982). Since both 7-point and 5-point Likert scales were used in this study, I decided to convert the 5-point Likert scale, measuring leisure crafting, into a 7-point Likert scale. This allowed for a consistent comparison of the scales and was performed prior to the analysis of the hypothesis.

## Assumption Checks

The study design provided for the assumption of quantitative, independent data, since the participants were only allowed to fill out the questionnaire once and had to provide their answers numerically on a scale. Further assumptions of the linear regression, used to assess the first hypothesis, were linearity, normal distribution of the residuals, homoscedasticity, and the absence of significant outliers. The assumptions of linearity and homoscedasticity as well as the absence of outliers were assessed using a scatterplot. Based on the plot, it was concluded that the assumption of homoscedasticity was fulfilled, while linearity and the absence of outliers were violated (see Appendix B, Figure B1). The presence of outliers was further evaluated using Cook's Distance. Furthermore, a P-P Plot was created to evaluate the assumption of normality, which was equally violated (see Appendix B, Figure B2). The analysis of the mediation effect (H2) is based on the relationship between leisure crafting and life satisfaction (H1). Consequently, the same assumptions as in the main analysis must be fulfilled for the mediation analysis. The assumption of independent and qualitative data was therefore met. The assumptions of linearity, the absence of influential outliers (see Appendix B, Figure B1), and normality (see Appendix B, Figure B2) were violated. Moreover, the assumption of a statistical relationship between the independent variable (leisure crafting) and the dependent variable (life satisfaction), which is unavoidable for a mediation analysis, was violated (Baron & Kenny, 1986). This can be observed in Table 3. Consequently, a statistical analysis of the mediating role of work-life conflict on the relationship between leisure crafting and subjective well-being was not possible.

## Table 3

Predictor	R	R Squared	Adjusted R	SE of the		
			Squared	Estimate		
LC	.002	.000	017	1.09		

Linear Regression Model Summary

*Note:* LC refers to the standardized leisure crafting. The dependent variable is life satisfaction. *Data Preparation* 

Based on the Cook's Distance analysis, 3 influential outliers could be identified (Stevens, 1984). Consequently, the outliers were removed from the initial data set of 61 participants. This resulted in a sample size of 58 participants with which the statistical analysis was performed.

# **Tobit Analysis**

As stated above, the assumptions of linearity, the absence of outliers, and normality for the initially planned linear regression of the first hypothesis were violated. Hence, a Tobit analysis, also called censored regression was conducted instead. This analysis assumes normality and homoscedasticity of the residuals (McDonald & Moffitt, 1980). A P-P plot was utilized to assess the normality (see Appendix B, Figure B3) while a scatter plot evaluated the homoscedasticity of the residuals (see Appendix B, Figure B4). Both assumptions were met.

#### Results

# **Descriptive statistics**

A statistically significant positive correlation was found between work-life conflict and family-work conflict (r = .85, p = <.001) as well as between work-life conflict and workfamily conflict (r = .86, p = <.001). Additionally, the correlation between work-family conflict and family-work conflict was positive and statistically significant (r = .46, p = <.001). A statistically non-significant negative correlation was found for the correlations between all other variables. The correlations of all variables are visualized in Table 1.

# Table 1

	N	М	SD	LC	WL	FW	WF	LS
LC	61	2.67	0.50	-				
WL	61	2.77	1.18	172	-			
FW	61	2.35	1.35	058	.846**	-		
WF	61	3.14	1.30	248	.855**	.460**	-	
LS	61	5.12	1.10	002	165	190	131	-

Correlations, Mean and Standard Deviation of the Variables

*Note:* LC refers to the standardized leisure crafting. WL refers to work-life conflict. FW refers to family-work conflict. WF refers to work-family conflict. LS refers to life satisfaction. The variables were all measured on a 7-point Likert scale: 1 = strongly disagree, 7 = strongly agree. \*\*P< 0.01.

# Hypothesis testing

The Tobit analysis resulted in a statistically non-significant outcome (z = 0.32, p = .751) which can be observed in Table 2. This indicates that the engagement in leisure crafting does not appear to influence SWB. As no relationship between leisure crafting and life

satisfaction (H1) was found, the mediation analysis (H2) could not be conducted (Baron & Kenny, 1986).

## Table 2

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			,,,

	coefficient	SE	z value	р
(intercept)	5.08	.61	8.3	<.001
LC	0.04	.12	0.3	.751
Log(scale)	-0.18	.09	-2.0	.048

*Note:* LC represents the standardized cumulated mean of leisure crafting. The lower bound was set at 0. The upper bound was not set. Residual df. = 55. Log likelihood = -71.629, DF = 3. Wald statistic = 0.101, DF = 1.

#### **Explorative Analysis**

Since the data did not support the main effect (H1), no mediation analysis (H2) could be performed (Baron & Kenny, 1986). However, to test whether work-life conflict influences the life satisfaction of teleworkers an explorative analysis was conducted. To test this effect, a linear regression and the corresponding assumption checks were carried out. A scatterplot was created to evaluate the linearity, homoscedasticity and the presence of outliers between the independent variable (work-life conflict) and the dependent variable (life satisfaction) (see Appendix C, Figure C1). Although the assumption of homoscedasticity is fulfilled, the assumptions of linearity and the absence of influential outliers are violated. A P-P plot was created to assess the assumption of normality (see Appendix C, Figure C2). It can be concluded, that this assumption is also violated. A Cook's distance analysis was conducted to identify influential outliers. 5 influential outliers were detected and deleted from the initial sample (N = 61), resulting in a sample size of 56 participants (Stevens, 1984).

Due to the violated assumption of linearity, absence of outliers and normality, a Tobit analysis was conducted. No statistically significant result was found (z = -1.81, p = .07). This

indicates that the occurrence of a work-life conflict does not seem to influence the life satisfaction of teleworkers.

#### Discussion

This study examined the effects of leisure crafting on the life satisfaction of teleworkers. Additionally, the role of work-life conflict as a possible mediator for the relationship between leisure crafting and life satisfaction was considered. Consistent with the literature on the effects of leisure crafting on life satisfaction (see e.g., Abdel Hadi et al., 2021; Kosenkranius et al., 2020; Petrou & Bakker, 2016), I expected that (H1) higher engagement in leisure crafting is positively associated with the subjective well-being of teleworkers and that (H2) the relationship between leisure crafting and subjective well-being is mediated by work-life conflict.

The first hypothesis was not supported by our data as no statistically significant relationship between the engagement in leisure crafting and life satisfaction was found. This result was not expected, as it is not consistent with the findings of preceding studies. The studies conducted hitherto found primarily positive effects of leisure crafting on the subjective well-being of teleworkers (Abdel Hadi et al., 2021; Petrou & Bakker, 2016). My data suggests otherwise as no effect of engagement in leisure crafting on life satisfaction was found. Thus, more engagement in leisure crafting does not appear to lead to higher life satisfaction among teleworkers.

One possible explanation for the deviating study result might be the study design. Previous studies have often used a longitudinal design and thus collected data at multiple time points. This facilitates the monitoring of changes in leisure craft engagement and the associated changes in the subjective well-being of teleworkers. Furthermore, by completing the questionnaire multiple times, it is possible to control for external influences that may affect life satisfaction and leisure craft engagement. The present study, on the other hand, is a cross-sectional study and thus only a momentary assessment of the involvement in leisure crafting and its potential influence on the participant's SWB (Wang & Cheng, 2020). Consequently, this study does not control for external influences.

The exploratory analysis was also not supported by the data as no statistically significant result was found. This outcome was surprising, as it is not consistent with previous studies either, which have found a negative influence of work-life conflict on life satisfaction (see e.g., Kelliher & Anderson, 2010; Kossek & Lee, 2017; Zhang et al., 2020). Therefore, this study might suggest that an increase or decrease in work-family or family-work conflict does not influence the SWB of teleworkers significantly. One underlying reason for the deviation of this study's result from the current research body of WLC on SWB might be the study design. Many of the studies hitherto have distinguished between the genders and/or living circumstances of the participants such as the presence of children or individuals in need of care (see e.g., Allen & Finkelstein, 2014; Erickson et al., 2010; Taşdelen-Karçkay & Bakalım, 2017; Zhang et al., 2020). The present study did not apply this differentiation.

# **Theoretical Implications**

This study provides useful theoretical implications as it does not support the previous assumptions that leisure crafting positively influences SWB and thus challenges the theories used for it up to now. An underlying reason for this result might be the already high life satisfaction of teleworkers. Since teleworking, compared to regular office work, allows employees to organize time and resources according to their needs, they might be able to satisfy the need for autonomy more easily (Zhang et al., 2020). Furthermore, the need for competence might be fulfilled through successful management of information and communication technologies or increased productivity, often facilitated by telework (Brunelle & Fortin, 2021; Petrou & Bakker, 2016). Lastly, the need for relatedness might be satisfied through increased communication with colleagues and supervisors to communicate e.g., work progress engagement with family (Brunelle & Fortin, 2021). Thus, teleworkers seem to be able to satisfy their needs within the work domain which increases their SWB. This is also

supported by studies showing improved quality of life for workers who switched to teleworking during the pandemic (Reuschke, 2019; Tahlyan et al., 2022).

Consequently, as teleworkers' needs seem to be satisfied by the work domain, there is no demand to compensate them elsewhere. Thus, teleworkers' engagement in leisure crafting can have only little or no impact on life satisfaction. That being said, it is possible that the self-determination theory by Ryan and Deci (2000) does not provide a sufficient basis for explaining the effects of leisure crafting on SWB. One reason for this may be the lack of encompassing of other factors in this theory, as it does not take into account the cross-domain fulfilment of needs and thus does not include all domains that affect life satisfaction.

Another reason for the study's findings may be the permeability of the boundary between the private and work spheres of life. Although the boundary between the work and private domain is shifted or even porous by teleworking, the flexibility of telework allows control over this effect (Sirgy et al., 2019). Thus, teleworkers who want to separate private and work life can create clear boundaries (e.g., a home office that is not consulted by the family and/or only used for work) while employees who prefer integration of the areas can create more permeable boundaries (e.g., no designated workplace in the house or making work calls while preparing lunch, etc.; Biron et al., 2022). By actively shaping the permeability of the boundary between work and private life, teleworkers can increase (or maintain) satisfaction within a domain, which can have a positive impact on their life satisfaction (Sirgy et al., 2019). For this reason, the spillover theory by Stains (1980) might not be able to provide an extensive enough approach to explain the effects of leisure crafting on SWB. Therefore, an adjustment might be needed which considers the active management of spillovers by an individual.

# **Exploratory** Analysis

Similar deficits of the self-determination theory (Ryan & Deci, 2000) and the spillover theory (Stains, 1980) to explain the effects of work-life conflict on life satisfaction can be

found. One possible reason for the finding of this study might be the low perception of worklife conflict. As the participants perceived a minor family-work conflict and only a slightly larger work-family conflict, it could be that these conflicts were hardly noticed by the participants and therefore have little influence on their SWB. This might be due to the already fulfilled needs within the work domain, which allow a balance of work and private life (Gravador & Teng-Calleja, 2018). Additionally, as teleworkers are able to actively shape the boundary between these two life domains, they might be able to manage arising conflicts well and perceive them therefore as less intense (Sirgy et al., 2019). Consequently, no or only a small change in life satisfaction will be observed if a conflict arises.

### **Practical Implications**

This study provides important practical implications that can be used by employers and employees. In particular, the results might be interesting for companies that are considering whether employees should continue to work from home after the Covid-19 pandemic. The data of this study suggests that teleworkers might have a high level of life satisfaction, which could be partly due to the possibility of need satisfaction in the work domain (Boell et al., 2016). Employers should therefore consider the possibility of allowing employees to work a certain proportion of their total working hours from home. This enables employees to maintain a better work-life balance, which in turn has a positive impact on the SWB (Gravador & Teng-Calleja, 2018). An increase in SWB will in turn have a positive effect on productivity and the commitment of employers (Petrou & Bakker, 2016). Furthermore, being aware of the effects of telework on employees allows organizations to foster telework beneficial behaviours and interventions (e.g., boundary management courses). **Limitations** 

Despite the strengths mentioned above, this study is not without limitations. The biggest limitation concerns the study design and small sample size. As the results are based on a cross-sectional study with self-reported data, it is not possible to conclude causality or to

exclude that socially desirable answers were given. Latter might have biased the data in a positive direction (higher life satisfaction or a lower work-life conflict).

The small sample size additionally minimized the generalizability in two ways. First, cultural generalisability is limited as the majority of participants in this study are European and thus live in an individualistic culture which positively influences attitudes towards telework (e.g., prefer to work alone rather than in a team, prefer to work at self-determined times; Adamovic, 2022; Baruch & King Joan Yuen, 2000). Second, the high socioeconomic status of this sample minimizes the generalizability to other social groups. As the majority of the sample has a university degree and is employed in a white-collar job, other options such as childcare or a designated home office are available which minimise the work-life conflict and thus facilitate teleworking. This is supported by data showing that the tendency to engage in telework rises with the level of education (Møller-Jensen et al., 2008).

The conceptualisation of the variable should also be considered a limitation. Although well-established scales were used, they still measure subjective constructs. Consequently, data such as perceived work-life conflict or life satisfaction may be interpreted differently and influenced differently by e.g., personality traits (Anderson et al., 2014), life circumstances such as the number of children or those in need of care, the marital status (Allen & Finkelstein, 2014), or the spatial living situation.

#### **Future Research**

Concluding from the limitations addressed above, future research could enrich the present study in several ways. First, due to the cross-sectional study design, future research should use a longitudinal design to evaluate the causality between leisure crafting and life satisfaction. Second, future studies should use a larger sample that is more culturally and socio-economically diverse. Thus, it would be possible to evaluate cultural influences on workers' attitudes to telework. Furthermore, the socio-economic influence on engagement in teleworking as well as in leisure crafting could be investigated. Of particular interest would be

the relationship between teleworking and lower socioeconomic status and thus possibly unfulfilled needs, which could be compensated for by engagement in leisure crafting. Lastly, the variables in future studies should be better designed. This means that the still rather new concept of leisure crafting should be made more understandable. The same applies to the term telework, which is currently not clearly defined and can therefore be misunderstood by participants. Furthermore, the external influences on subjective concepts should be better controlled.

#### Conclusion

By evaluating the effect of leisure crafting on teleworkers' subjective well-being, a hitherto neglected aspect of teleworkers' life is being addressed. The result of this study suggests that the engagement in leisure crafting might have little influence on the life satisfaction of teleworkers. This contributes to the previous body of research in this field, as it questions previously used theories and study results. In particular, the theoretical significance of this study forms a basis for future studies, addressing different theoretical frameworks and exploring the underlying reasons for the telework paradox.

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# Appendix A

The Questionaire

# Leisure crafting and well-being

#### Q101 INFORMATION ABOUT THE RESEARCH Version for participants

"Leisure crafting, need satisfaction, work life balance, and subjective well-being" PSY-2122-S-0248

Why do I receive this information? This study focuses on people who are teleworkers or work from home. We are interested in understanding teleworkers' crafting behavior, need satisfaction and subjective well-being. The research is conducted by Dr. Nanxi Yan and her bachelor thesis students. No external parties are involved.

**Do I have to participate in this research?** Participation in the research is voluntary. However, your consent is needed. Therefore, please read this information carefully. Ask all the questions you might have, for example because you do not understand something. Only afterwards you decide if you want to participate. If you decide not to participate, you do not need to explain why, and there will be no negative consequences for you. You have this right at all times, including after you have consented to participate in the research.

**Why this research?** The purpose of this study is to understand how engaging in crafting behavior (i.e., making small changes in work and/or life) can help teleworkers to decrease stress and increase well-being.

What do we ask of you during the research? Before you start the study, you will first be asked for consent to participate. If you consent to participate, you will be asked to fill in some data about your work experiences and work environment, crafting behavior and experiences and subjective well-being. The survey takes about **10-15 minutes** of your time. No compensation will be provided.

What are the consequences of participation? The benefit is that you get an opportunity to reflect on your own leisure and work experiences, which might help you to obtain more understanding of yourselves and your work and life experiences. No costs, risks or harm is involved in the study.

How will we treat your data? The data will be used to write bachelor thesis and academic publications. The data will be collected and analyzed by Dr. Nanxi Yan and her bachelor thesis students. No sensitive data is collected. Your data will be stored on a secured cloudbased system provided by the university of the researchers for 10 years (University of Groningen). Your responses (in combination with your name and email address) are considered personal data. Participants have the right to access, rectification, and erasure of their personal data. You can do so and also obtain a copy of personal data by sending an email to Dr. Nanxi Yan. No sensitive (personal data) will be processed as they will be removed and replaced by a personal identifaction number. The lists that can match participants' personal information and identifcation number will be saved in Dr. Nanxi Yan's password protected computers and will be deleted once the data collection is done or study reports have been sent out to those who needed it. To make science more transparent and reproducible, it has become common practice to make data publicly available. In line with this, we will upload the anonymized data sets to an open data repository (www.osf.io). Note that we will take all possible measures to ensure that your privacy is protected. What else do you need to know? You may always ask questions about the research: now, during the research, and after the end of the research. You can do so by speaking with Dr.

Nanxi Yan by emailing (n.yan@rug.nl). Do you have questions/concerns about your rights as a research participant or about the conduct of the research? You may also contact the Ethics Committee of the Faculty of Behavioural and Social Sciences of the University of Groningen: ec-bss@rug.nl.

Do you have questions or concerns regarding the handling of your personal data? You may also contact the University of Groningen Data Protection Officer: privacy@rug.nl. As a research participant, you have the right to a copy of this research information.

I give my consent to participate in this study.

Yes (1)No (2)

## Leisure Crafting

The following statements assess leisure crafting. Leisure crafting can be defined as actively engaging in leisure activities targeted at goal setting, human connection, learning and personal development.

Example: actively playing soccer with the intention to connect to others.

On the other side, just watching TV or listening to music is not considered leisure crafting.

I try to build relationships through leisure crafting.

 $\bigcirc$  Not at all (1)

O Not really (2)

O Undecided (3)

O Somewhat (4)

 $\bigcirc$  Very much (5)

-----

I try to find challenging activities outside of work.

Not at all (1)Not really (2)

O Undecided (3)

O Somewhat (4)

 $\bigcirc$  Very much (5)

I try to increase my skills through leisure activities.

O Not at all (1)

 $\bigcirc$  Not really (2)

O Undecided (3)

O Somewhat (4)

 $\bigcirc$  Very much (5)

I try to increase my learning experiences through leisure activities.

O Not at all (1)

 $\bigcirc$  Not really (2)

O Undecided (3)

O Somewhat (4)

 $\bigcirc$  Very much (5)

I try to set myself new goals to achieve through leisure activities.

O Not at all (1)

O Not really (2)

O Undecided (3)

O Somewhat (4)

 $\bigcirc$  Very much (5)

Through my leisure activities, I look for inspiration from others.

O Not at all (1)

 $\bigcirc$  Not really (2)

O Undecided (3)

O Somewhat (4)

 $\bigcirc$  Very much (5)

Through my leisure activities, I try to obtain novel experiences.

Not at all (1)Not really (2)

O Undecided (3)

O Somewhat (4)

O Very much (5)

My leisure time is a chance for me to grow and develop.

Not at all (1)
Not really (2)
Undecided (3)
Somewhat (4)
Very much (5)

I look for new experiences through leisure activities to keep myself mentally stimulated.

 $\bigcirc$  Not at all (1)

 $\bigcirc$  Not really (2)

O Undecided (3)

O Somewhat (4)

 $\bigcirc$  Very much (5)

Would you like to specify or add what leisure activities you engage in?

How often do you engage in leisure crafting each week?

Under what circumstances do you usually engage is leisure crafting?

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# Life satisfaction

The following statements assess life satisfaction. Life satisfaction refers to how satisfied you are with your life in general.

\_\_\_\_\_

In most ways my life is close to ideal.

O Strongly disagree (1)

- O Disagree (2)
- Slightly disagree (3)
- O Neither agree nor disagree (4)

O Slightly agree (5)

- O Agree (6)
- $\bigcirc$  Strongly agree (7)

The conditions of my life are excellent.

O Strongly disagree (1)
O Disagree (2)
$\bigcirc$ Slightly disagree (3)
O Neither agree nor disagree (4)
$\bigcirc$ Slightly agree (5)
O Agree (6)
O Strongly agree (7)

\_\_\_\_\_

○ Slightly agree (5)

O Strongly agree (7)

O Agree (6)

I am satisfied with my life.
O Strongly disagree (1)
O Disagree (2)
○ Slightly disagree (3)
O Neither agree nor disagree (4)
○ Slightly agree (5)
O Agree (6)
O Strongly agree (7)
So far I have gotten the important things I want in life.
O Strongly disagree (1)
O Disagree (2)
○ Slightly disagree (3)
<ul> <li>Neither agree nor disagree (4)</li> </ul>

If I could live my life over, I would change almost nothing.

- O Strongly disagree (1)
- O Disagree (2)
- O Slightly disagree (3)
- O Neither agree nor disagree (4)
- Slightly agree (5)
- O Agree (6)
- O Strongly agree (7)

## Work-Family Conflict

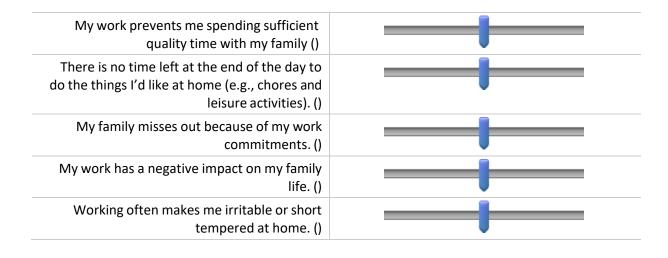
The following statements assess work-family conflict. Work-family conflict means the conflict of how work can affect your family life or how your family can affect your work.

To select an option you need to move the slider once, even if the slider is already at the option you want to choose.

-----

These questions are about how your work impacts your family life.

Stron	gly			Strongly	No	Not		
diasa	gree	agree n	or	agree	ар	plicable		
		disagre	е					
1	2	3	4	5	6	7		



These questions are about how your family impacts your work.

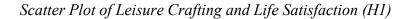
	Strognly disagree		Neither agree nor disagree		Strongly diagree		Not licable
	1	2	3	4	5	6	7
My work performance suffers because of my personal and family commitments. ()				I			
Family related concerns or responsibilities often distract me at work. ()		_		J		_	
If I did not have a family I'd be a better employee ()		_		J		_	
My family has a negative impact on my day to day work duties. ()		_		J		_	
It is difficult to concentrate at work because I am so exhausted by family responsibilities. ()		_		J		_	

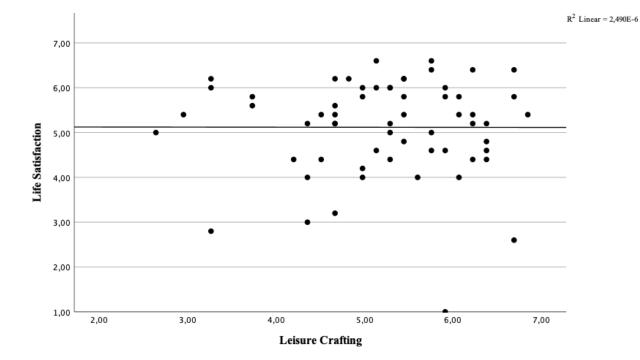
Would you like to specify or add something about your work-family conflict?

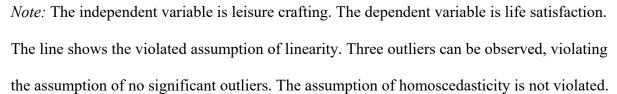
# **Appendix B**

# Figures of the Main Analysis

# Figure B1

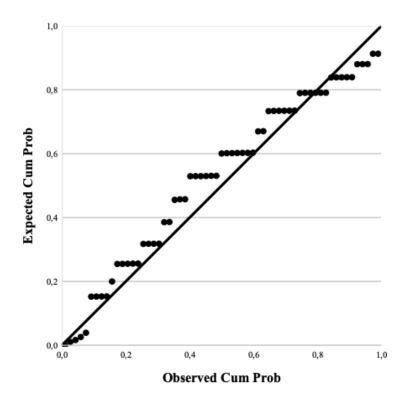






# Figure B2

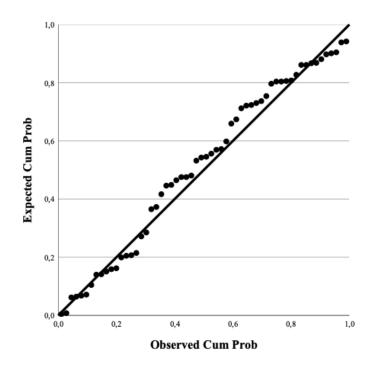
Normal P-P Plot of Regression Standardized Residuals of the Dependent Variable Life Satisfaction (H1)



*Note:* The plot shows the standardized residuals of life satisfaction. A violation of the assumption of normality can be observed.

# Figure B3

Normal PP-Plot of Regression Standardized Residuals of Life Satisfaction (H1)



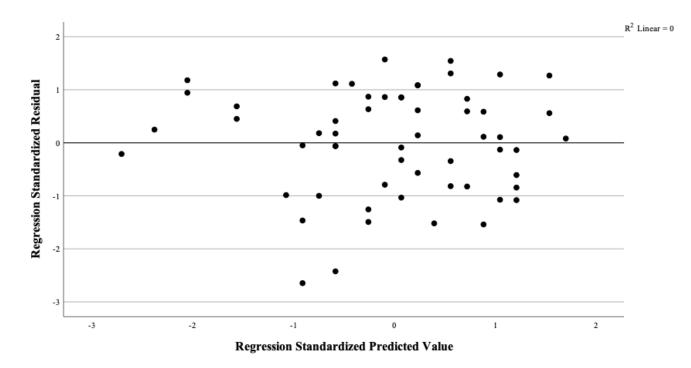
*Note:* The plot was created after three influential outliers were deleted from the dataset.

Normality of the residuals of the dependent variable life satisfaction can be observed. This

indicates no violation of the assumption of normality for the tobit analysis.

# Figure B4

Scatterplot of Life Satisfaction for the Tobit Analysis (H1)



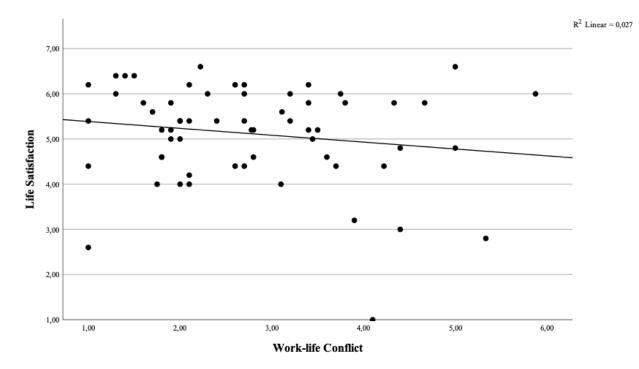
*Note:* The scatterplot was created after three influential outliers were deleted from the dataset. Homoscedasticity of the data can be observed. This indicates no violation of the assumption of homoscedasticity for the tobit analysis.

# Appendix C

Figures and Tables Exploratory Analysis

# Figure C1

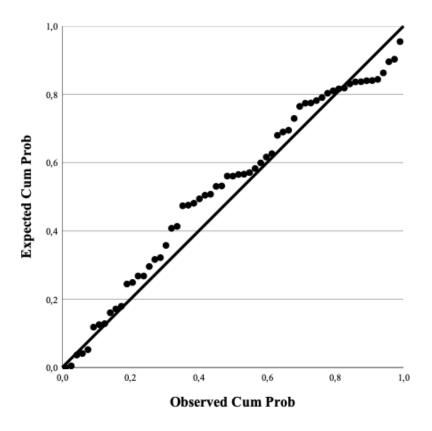
Scatterplot of Life Satisfaction and Work-life Conflict



*Note:* The independent variable is work-life conflict. The dependent variable is life satisfaction. The assumption homoscedasticity is fulfilled. The assumption of linearity and absence of influential outliers are violated.

# Figure C2

Normal PP-Plot of Regression Standardized Residuals of the Dependent Variable Life Satisfaction



*Note:* This plot shows the standardized residuals of the dependent variable life satisfaction. It can be observed that the assumption of normality is violated.