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DISENTANGLING THE ATTRACTIVENESS OF TELEWORK TO EMPLOYEES: A FACTORIAL SURVEY EXPERIMENT

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Disentangling the attractiveness of telework to employees: a factorial survey experiment*

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Abstract

This research adds to the literature on the attractiveness of telework to employees. To this end, we set up an innovative factorial survey experiment in which a high-quality sample of employees evaluates job offers with diverging characteristics, among which a wide variation in telework possibilities. We find that the relationship between the possibility to telework and job attractiveness is approximately linear: 10 percentage points more telework hours yield a rise of 2.2 percentage points in job attractiveness and, therefore, the willingness to give up an increase of 2.3 pp in wage in the new job. Our experimental design also allows us to investigate the underlying mechanisms of this relationship as well as its moderators. We find that the attractiveness of telework is particularly explained by expectations of an improved work-life balance, more work scheduling autonomy, a higher job satisfaction, and more work methods autonomy in jobs with a greater possibility to telework. In addition, our analyses show that less conscientious employees are on average more attracted to jobs with greater telework possibilities, so that it is important that self-selection in jobs with more telework is well-monitored.

Keywords: telework, job attractiveness, factorial survey experiment.

JEL codes: J24, J81, J31, J63, I31.

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1. Introduction

Whereas telework was a limited practice before the COVID-19 pandemic, a considerable number of employees across the globe (e.g., almost two-fifths of the employees in the European Union) were forced to telework full-time due to this pandemic (Eurofound, 2020; Milasi et al., 2020). Many employees believe telework is here to stay (Moens et al., 2021). Nevertheless, many employers wonder to what extent they should continue to offer the possibility to telework (i.e., to offer location flexibility) once the working environment returns to normal, especially in light of the war for talent (Ott et al., 2018; Dowd, 2021; Van Den Broek & Lelong, 2021).¹ A crucial element in this decision is the measure of how attractive telework is to the working population today, particularly given the fact that their priorities concerning working conditions and work-life balance have shifted because of the COVID-19 pandemic (Lippens et al., 2021). Thorough research on the effect of telework on job attractiveness is, therefore, more relevant than ever.

Recent studies on the effect of telework on job attractiveness resort to experimental methods to avoid the endogeneity bias in analyses based on observational data (Thompson et al., 2015; Mas & Pallais, 2017; Maestas et al., 2018; Schmoll & Süß, 2019; He et al., 2021). As opposed to their non-experimental counterparts (e.g., Weeden, 2005; De Graaf & Rietveld, 2007; Gariety & Shaffer, 2007; Oettinger, 2011; Pigini & Staffolani, 2019; White, 2019), these recent studies yield consistent results. All of these demonstrated that employees are, on average, attracted by the possibility to telework and are willing to pay for this possibility (Thompson et al., 2015; Mas & Pallais, 2017; Maestas et al., 2018; Schmoll & Süß, 2019; He et al., 2021). For example, Mas and Pallais (2017) discovered that the average worker is willing to give up 8% of his or her wage for a job with the possibility to telework (compared to an identical job without this possibility).

Unfortunately, these studies suffer from several limitations. Their first limitation involves the failure to acknowledge gradations of telework intensity. Most of the aforementioned experimental studies treat telework dichotomously: either participants can enjoy telework or they cannot (Mas & Pallais, 2017; Maestas et al., 2018; Schmoll & Süß, 2019; He et al.,

¹ The idea of location flexibility is central to most definitions of telework (Allen et al., 2015). Therefore, in this paper, telework and location flexibility are treated as synonyms.

2021). However, Thompson et al. (2015) recognised the need for additional research to parse out different levels of how frequently one can work away from the main work site and hinted that the relationship between the amount of possibility to telework and job attractiveness is not linear.² The existing experimental research results on job attractiveness of an unspecified amount of possibility to telework are not sufficiently fine-grained to be useful to employers as these results do not help in deciding how much possibility to telework should be offered in the (pandemic-free) future.

Second, the experimentally-based studies concerning telework attractiveness do not shed much light on *why* precisely telework attracts employees. Only Thompson et al. (2015) investigate such a mediator, i.e., anticipated organisational support. Both Thompson et al. (2015) and Schmoll and Süß (2019) recognised the need for a more extensive and structured investigation of possible mediators. Insights into the expected positive and negative consequences of telework are important as they allow employers to deploy telework as effectively as possible (e.g., in their human resources policy) (Charalampous et al., 2019). In addition, such insights are also instructive for environments where teleworking jobs are impossible: some features that make telework attractive might be incorporated here in a different way and therefore also help to attract talented employees to these environments.

Third, a structural investigation of an extensive list of moderators is missing in the existing experimental literature on the effect of telework on job attractiveness. Mas and Pallais (2017) found that 25% of the applicants in their experiment were willing to pay at least 14% of their wage to work from home, while 20% chose to work exclusively on-site even when there was no wage penalty for working at home. By examining moderators, researchers, employers and policymakers gain insights into *when* employees are attracted by telework. Dispersed over different experimental studies, a considerable number of moderators have already been investigated on an ad hoc basis (e.g., gender, age, education level, children, marital status). The results, however, are not always consistent between the different studies. For example, Mas & Pallais (2017) did not find a moderating role of the education level of the employees in the valuation of telework, while Maestas et al. (2018) did. The lack of a joint investigation of an extensive list of moderators might explain these

² Thompson et al. (2015) had the intention to measure three levels of location flexibility. Nevertheless they admit that they do not succeed in ascertaining whether being able to telework as frequently as desired is more attractive than the opportunity to do so partially (due to ambiguity in the job descriptions).

inconsistent findings: since not all moderators can be easily experimentally controlled, ad hoc-included moderators might reflect the variation in other, unobserved moderators. Furthermore, other potential moderators, such as personality traits and job type characteristics, were theoretically described, but not yet empirically tested (e.g., Schmoll & Süß, 2019).

We address these limitations by setting up an extended factorial survey experiment with a high-quality sample of Flemish employees to analyse the extent to which employees value telework relative to other job characteristics. To this end, we answer three research questions. Our first research question is: to what extent are employees attracted by a greater possibility to telework in job offers (RQ1)? More concretely, we investigate the amount of wage they are willing to give up for a greater possibility to telework (RQ1a) and whether the relationship between the amount of possibility to telework and job attractiveness is linear (RQ1b). Second, we study the mediators of this relationship, i.e., why employees are attracted by a greater possibility to telework (RQ2). In contrast to the existing experimental literature, we investigate this structurally and extensively by employing the framework of Gajendran and Harrison (2007). Specifically, we investigate what the expected consequences of telework are in terms of autonomy, work-life balance, relationship quality, job satisfaction, productivity, commitment, minimisation of stress, professional development, feedback, and promotion chances (RQ2a) and how these consequences are associated with job attractiveness (RQ2b). Finally, we jointly study a broad set of moderators in the relationship between telework and job attractiveness. That is, we study when, in particular, employees are more attracted by a greater possibility to telework (RQ3), thereby focusing on moderators in the applicant characteristics (RQ3a), other offered job characteristics (RQ3b), and current job characteristics (RQ3c).

2. Experimental setup

2.1 Data collection

Survey responses were collected from a representative sample of the population of

employees who were more than 18 years old, at least six months active in their current salaried employment, and able to perform at least 10% of their job via telework in Flanders, the northern Dutch-speaking part of Belgium. This was completed in the period between 30 April 2021 and 13 August 2021 via the online platform Qualtrics.³

To obtain our sample of 500 individuals from the research population, we collaborated with the large data supplier Bilendi. The panel of Bilendi consists of a diverse set of profiles thanks to recruiting via multiple sources. Micro launches spread over the week amongst this diverse panel ensured our sample was not only representative in terms of hard socio-demographic factors, but was also representative of the broader population in aspects that are more difficult to measure. Regarding the hard socio-demographic factors, the frequency distributions in the population for age (18–34, 35–54 and 55+), gender (male and female), and education level (at maximum secondary education and tertiary education) were strictly mimicked (crossed quota).

Descriptive statistics of the applicant and current job characteristics of the participants can be retrieved from Table 1. Our participants were on average 39.9 years old, 50.2% of the participants was female, and 67.2% of the sample was highly educated. A majority of the participants worked full-time (82.6%) and was active in the private sector (64.2%). Only 7.2% was less than one year active in the current job.

<Table 1 about here>

The online survey contained three major parts: the pre-experimental part, the experiment and the post-experimental part.⁴ The pre-experimental part included an introduction, an informed consent question, and questions to ascertain that participants belong to our population. The core of the online survey, i.e., the experiment, is explained in Section 2.2. We elucidate the questions surveyed in the post-experimental part in Section 2.3.

³ From the start of the data collection until 24 June 2021, telework was mandated by the Flemish government in jobs where it was possible. After this date until the end of the data collection, telework was strongly recommended.

⁴ We performed a pilot test with 13 participants to evaluate the clarity, credibility, and duration of the survey, which resulted in fine-tuning some of the details before launching the survey.

2.2 Vignette design

The participants in our factorial survey experiment were asked to judge five vignettes, each containing a hypothetical job offer. These job offers differed regarding four variables (the vignette factors) which varied randomly over a defined number of categories (the vignette levels).⁵ As a consequence, correlations between the vignette factors were minimised to a value close to 0 (Rossi & Nock, 1982). Because of this design (labelled as orthogonal), a causal interpretation of the effects of the vignette factors on participants' judgements was possible (Auspurg & Hinz, 2014; Van Belle et al., 2018; Drasch, 2019; Van Belle et al., 2019).

Our participants knew that they were participating in an experiment and that the job offers were hypothetical. This might raise concerns about external validity. However, two recent studies showed that well-designed experiments employing hypothetical job offers lead to realistic results. First, Mas and Pallais (2017) estimated the willingness to pay for the possibility to telework by means of a discrete choice experiment in the field (in the employment process for a national call centre) and by means of a discrete choice module in the web-based, nationally representative Understanding America Study. As valuations from both types of discrete choice experiments were very similar, the authors established that well-designed experiments with hypothetical job offers elicit responses that are comparable to market choices. Second, Drasch (2019) demonstrated the good external validity of a similar experiment as ours. Prospective female labour market re-entrants were asked about their willingness to accept lower wages if compensated by positive nonmonetary job characteristics. Results of the behavioural intentions measured by this factorial survey experiment were highly correlated with evidence of actual behaviour collected via a follow-up study.

The participants were asked to imagine they are looking for a new job in their current line of work. We explicitly stated that the job offers are the same as the participants' current job in all ways, except for the dimensions (the vignette factors) specifically mentioned. This

⁵ In general, Auspurg and Hinz (2014) recommend approximately five up to nine vignette factors. However, when one is interested in only a few vignette factors, a smaller number of factors can be employed according to them. The use of only a few variations but several vignettes per participant increases the risk that participants become aware of the manipulations, which can trigger further undesirable methodological effects, such as the social desirability bias (Auspurg & Hinz, 2014). The latter is especially undesirable regarding sensitive topics like discrimination in hiring, yet is less of a problem in our study.

approach is based on Mas and Pallais (2017).⁶ The vignette factors and levels used in our experiment can be found in Table 2.

<Table 2 about here>

The vignette factor of main interest was 'Possibility to telework'. The levels of this factor ranged from 0% to 80% in increments of 10%.⁷ In the case of 0%, the job had to be performed exclusively at the central work location. In the case of all other percentages, the job offered the possibility to telework up to that percentage.⁸ By including many levels of possibility to telework, we were able to operationalise this variable as continuous in the analyses and, therefore, obtain more fine-grained valuations of the possibility to telework (in light of RQ1 and RQ1a) and examine whether the relationship between the amount of the possibility to telework and job attractiveness was linear (RQ1b).

'Net wage' was another important vignette factor since we also wanted to discover the amount of wage our participants were willing to give up for a greater possibility to telework (RQ1a).⁹ It was expressed in percentages compared to the current net wage (nine levels ranging from 20% less to 20% more net wage). We informed the participants that all other financial and fringe benefits were the same as in their current job.

The vignette factor 'Temporal flexibility' was comprised of three levels: (i) the job required the participant to work a fixed number of hours on a working day between a fixed start and end time, or (ii) the job required the participant to work during certain core hours, but start and end times are flexible, or (iii) the participant was to a large extent free to choose when the work would be performed as long as the job tasks were completed (time-independent work). Opposed to location flexibility, temporal flexibility is not inherently linked to telework because those who telework may or may not have control over when

⁶ However, while Mas and Pallais (2017) framed the vignette 'in a different line of work' for participants who are not able to perform at least 10% of their job via telework (e.g., truck drivers), we did not allow these participants to participate in our experiment since it is very difficult for a participant to imagine a very similar job as the current job in a different line of work.

⁷ We set the maximum at 80% and did not include full-time telework (100%). It would be difficult for a participant who is, for example, able to perform only 20% of the current job via telework (e.g., a school principal), to imagine a similar job that never requires attendance at the central work location.

⁸ In certain job offers, this percentage is higher than the extent of telework that is possible in the current job. We explicitly state that, in this case, physical attendance at a specific location is less required in the offered job compared to the current job, possibly due to new technology.

⁹ Auspurg and Hinz (2014) state that factorial survey experiments can also be used to assess the exact monetary trade-offs of factors by estimating the level of earnings that 'neutralises' the effect of a certain vignette character on the participants' judgements.

they work (Allen et al., 2015). Thompson et al. (2015) and Schmoll and Süß (2019) therefore advised to make a clear distinction between location flexibility and temporal flexibility.

'Commuting time' completed the list of vignette factors. Commuting time presumably influences the attractiveness of the possibility to telework (e.g., Mas & Pallais, 2017). This vignette factor was operationalised as the estimated daily commuting time to the central work location by car (round trip) and consisted of nine levels: 10, 30, 50, 70, 90, 110, 130, 150 and 170 minutes. The participant was able to choose the preferred transportation mode, which we explicitly clarified in the vignette description. However, to ensure the participants had the same amount of travel in mind, we expressed the commuting times in minutes as would be needed by car.

The 9 × 9 × 3 × 9 levels of the vignette factors resulted in 2,187 possible combinations (the vignette universe). A full factorial design, in which all possible vignettes were represented to single participants, was therefore not possible. Typically, researchers then select a sample out of this universe using D-efficient randomisation following the Kuhfeld (2010) algorithm as detailed in Auspurg and Hinz (2014). Using this algorithm, we sampled 500 vignettes out of the vignette universe allowing for all two-way interactions to be identified.¹⁰ In the next step, the selected vignettes were grouped into 100 decks by randomly allocating five vignettes to one deck (following Auspurg & Hinz, 2014). Those decks were subsequently randomly allocated to the participants. Since 500 participants participated in our survey (see Section 2.1) and each participant evaluated five vignettes (see Section 2.2), each vignette was evaluated five times. Consequently, the total number of observations in our analyses amounted to 2,500.

To answer our research questions, we investigated the effect of different levels of the vignette factors, i.e., the offered job characteristics, on two outcome variables. Our main outcome variable is job attractiveness. The participants were asked to evaluate job attractiveness ('How attractive do you think this job is?') on a scale from 0 (not attractive at all) to 10 (very attractive). This is in line with Thompson et al. (2015) and Schmoll and Süß (2019), both of whom conducted factorial survey experiments to study the effect of location and temporal flexibility on organisation attractiveness. Our secondary outcome variable is

 $^{^{10}}$ This resulted in a D-efficiency of 91.039 (with 100 being the maximum value in case of a full factorial design).

the probability of accepting the job. The participants were asked to evaluate the probability of accepting the job ('How probable is it you would accept this job?') from 0 (not probable at all) to 10 (very probable). This is in line with the factorial survey experiment of Drasch (2019), in which prospective female labour market re-entrants were asked about their willingness to accept lower wages if compensated by positive nonmonetary job characteristics.

The possibility of adding questions after each vignette in a factorial survey experiment provided us with the opportunity to disclose the mechanisms of the relationship between the possibility to telework and job attractiveness (RQ2). To meet the need for a more extensive and structured investigation of possible mediators, we examined a list of thirteen job perceptions that frequently occur in the telework literature. These job perceptions and the accompanying statements are listed in Table 3. Each of these job perceptions was derived from meta-analyses or reviews on telework (e.g., Gajendran & Harrison, 2007; Redman et al., 2009; Charalampous et al., 2019). The framework of Gajendran and Harrison (2007) provided us with a relevant basis for our list of job perceptions, yet we decided to add feedback and professional development, which are aspects of professional isolation as well (Cooper & Kurland, 2002; Collins et al., 2016), and we included three types of autonomy in line with Morgeson and Humphrey (2006) (whereas Gajendran and Harrison, 2007, include an overall item autonomy). We considered the following job perceptions: work scheduling autonomy, decision-making autonomy, work methods autonomy, work-life balance, the relationship quality with the supervisor and finally, the relationship quality with co-workers. These job perceptions were labelled as proximal in the framework of Gajendran and Harrison (2007). In addition, we scrutinised job satisfaction, productivity, commitment, minimisation of stress, professional development, feedback of supervisors or colleagues, and promotion chances. These job perceptions were labelled as distal in the framework of Gajendran and Harrison (2007). The authors made this distinction between distal and proximal job perceptions as the proximal job perceptions are expected to mediate the relationship between telework and the distal job perceptions. In the analyses (see Section 3), we first investigated the effect of an increase in the possibility to telework on each of the aforementioned job perceptions separately (e.g., 'Does an applicant expect more work scheduling autonomy in a job with a greater possibility to telework?'), to answer RQ2a. Next, we estimated a serial multiple mediation analysis to investigate whether these job perceptions mediate the relationship between the possibility to telework and job attractiveness (in which we took into account the mediating role of the proximal job perceptions on the distal job perceptions), to answer RQ2b. The latter is depicted in Figure 1.

<Table 3 about here>

<Figure 1 about here>

2.3 Post-experimental survey

In the post-experimental survey, we collected the applicant characteristics and his or her current job characteristics in the context of RQ3a and RQ3c (see Figure 2). A wide range of applicant characteristics was surveyed: (i) personality traits (emotional stability, extraversion, agreeableness, conscientiousness, and openness to experience), (ii) basic socio-demographics (age, gender, education level, relationship status, and the number of inhabitant children), (iii) private care responsibilities, (iv) preference for segmentation of work and family roles, and (v) how easy it is to make family ends meet. In addition, we also took the following job characteristics into account: (i) full-time or part-time contract, (ii) private or public sector, (iii) job tenure less than one year or more than one year, and (iv) job type characteristics of 'job resources related to job tasks', 'required knowledge in the job', and 'social character of the job'. A description of the applicant and current job characteristics can be found in Table 1.

<Figure 2 about here>

As explained in Section 1, we add to the literature in two ways. Our first contribution consists of investigating this extensive list of moderators jointly. A considerable number of these moderators have been previously investigated; however, these were done ad hoc and across several different experimental studies. Table 1 displays whether these applicant and current job characteristics were scrutinised as moderators in any previous experimental study on telework attractiveness. Since not all moderators can be easily experimentally controlled, ad hoc-included moderators might reflect the variation in other, unobserved moderators. For example, the preference for segmentation of work and family roles, found as a moderator in the relationship between location flexibility and organisation

attractiveness by Thompson et al. (2015), might be correlated with age. We also take this applicant characteristic into account in our study, where Thompson et al. (2015) did not. Second, we also added to the existing experimental literature by including personality traits and several job characteristics in our list of moderators. These characteristics have not yet been experimentally investigated in the relationship between the possibility to telework and job attractiveness, although the telework literature contains several motives for examining these traits and characteristics as moderators. For example, (i) in the relationship between telework and organisation attractiveness, extraversion was suggested as a moderator by Schmoll and Süß (2019); (ii) in the relationship between telework and affective well-being, openness to experience was authenticated as a moderator by Anderson et al. (2015); and, (iii) in the relationship between teleworking and job performance, Golden and Gajendran (2019) investigated whether the knowledge characteristics 'job complexity' and 'problem solving', as well as whether the social characteristics 'received interdependence' and 'social support' played a role.

3. Results

3.1 Are employees attracted by a greater possibility to telework in job offers?

In this first subsection we discuss whether our participants are attracted by a greater possibility to telework in job offers (RQ1). In addition, this subsection provides an answer to the research sub-questions 'What is the amount of wage employees are willing to give up for a greater possibility to telework?' (RQ1a) and 'Is the relationship between the amount of the possibility to telework and job attractiveness linear?' (RQ1b).

An answer to RQ1 can be found in the results of our multivariate regression analyses in column (1) and column (2) of Table 4. These are linear regression analyses, with job attractiveness as the dependent variable, the offered job characteristics discussed in Section 2.2 as independent variables and, from model (2) onward, the applicant and current job characteristics discussed in Section 2.3 as control variables. Standard errors are corrected for the clustering of the observations at the applicant level. In these analyses, the

independent variables 'possibility to telework', 'net wage compared to current wage', and 'commuting time' are included as continuous variables, without allowing for non-linear relationships; in later analyses other specifications are tested.

<Table 4 about here>

As expected, the coefficients of the multivariate regression analyses in model (1) and model (2) hardly differ because of the experimental design.¹¹ We find that a one percentage point (pp) increase in the offered potential telework hours leads to a significant rise of 0.022 (p < .01) units on job attractiveness (on a scale from 0 to 10 (see Section 2.2)). In other words, 10 pp more telework possibilities yield a 2.2 pp rise in expected job attractiveness.¹² This finding adds to the experimental literature by confirming that telework affects job attractiveness and especially by providing a fine-grained estimation of the effect of the possibility to telework on job attractiveness.

With regard to the other characteristics of the offered job, we learn that an increased commuting time of 10 minutes causes a decline in job attractiveness of 2.4 pp (p < .01). Furthermore, we find that a higher net wage of 10 pp compared to the current wage leads to a 9.7 pp (p < .01) rise in job attractiveness. Finally, in comparison with jobs imposing a fixed start and end time, jobs with flexibility in start and end times are seen as 7.9 pp more attractive, and jobs in which the employee is, to a large extent, free to choose when the work is performed as long as the job tasks are completed (time-independent work) are seen as 9.4 pp more attractive.

To scrutinise RQ1a, we divide the coefficient of the possibility to telework (β = .022, p < .01) by the coefficient of net wage (β = .097, p < .01). We find that our experimental applicants are on average willing to give up 2.3 pp of increase in wage in a new job for 10 pp more telework hours. Mas and Pallais (2017) and Maestas et al. (2018) also discovered that the average worker is willing to give up wage for the opportunity to telework: the willingness to pay for an unspecified amount of telework was estimated by the first authors at 8% of wages (as introduced in Section 1) and by the latter at 4% of wages.

¹¹ Therefore, we discuss the coefficients of the analyses with control variables in the remainder of this article, if not specified otherwise.

¹² After rescaling the job attractiveness measure to 100, both the independent and the dependent variable are expressed in percentages: 1 pp more telework possibilities yield a 0.2 pp rise in job attractiveness. As a consequence, 10 pp more telework possibilities yield a 2.2 pp rise in job attractiveness.

To answer RQ1b, we add a quadratic term of the possibility to telework to our benchmark model (2). The regression results are presented in column (3) of Table 4. Since the coefficient of this quadratic term is not significant, we find the first evidence that a relationship between the amount of the possibility to telework and job attractiveness is not concave or convex but rather linear. In column (4) of Table 4, the offered job characteristics are operationalised as categorical variables. The coefficients confirm that the relationship between the possibility to telework and job attractiveness is approximately linear.¹³

In Appendix B, three supplemental tables can be found in which we conduct several robustness analyses in light of RQ1, RQ1a and RQ1b. The first supplemental table, Table B1, consists of multivariate regression analyses identical to those in Table 4, yet performed on a restricted sample. This sample (n = 846) only contains evaluations of job offers whose offered percentage of telework does not differ more than 20% of the maximum amount of telework that is possible in the current job. If the offered percentage of telework in the job offer differs too greatly from the maximum amount of telework possible in the current job, then it might be harder for the participant to imagine a job similar to the current job but which differs on the offered job characteristics. The results for these analyses on the restricted sample are comparable to the results on the full sample. The second supplemental table, Table B2, also consists of similar multivariate regression analyses as in Table 4, but with the probability to accept the job as the outcome variable (as discussed in Section 2.2). The results of these supplemental analyses are also in line with the analyses in which job attractiveness is the outcome variable. We find that 10 pp more telework possibilities also yield a 2.1 pp (p < .01) rise in probability to accept the job. Finally, in Table B3, we include both the 'absolute' offered job characteristics as well as the 'relative' offered job characteristics (i.e., the difference in the factor between the job offer and the current job) in a multivariate regression analysis. This is relevant as employees might compare the hypothetical job offer to their current job to a great extent. We find that conditional on the absolute level of the offered possibility to telework, the relative possibility to telework is not determining for job attractiveness. As the possibility to telework turns out to be an aspect that employees view more in an absolute way than relative to their current job, the

 $^{^{13}}$ We also note that the increase in R^2 is limited compared to the previous multivariate regression analyses despite the estimation of many more coefficients.

relevance of the main results in Table 4 is confirmed.

3.2 Why are employees attracted by a greater possibility to telework?

This subsection sheds light on why employees are attracted by a greater possibility to telework (RQ2). Therefore, we first investigate the expected consequences of telework (the job perceptions introduced in Section 2.2) (RQ2a), and next we examine how the expected consequences of telework are associated with job attractiveness (RQ2b) (see Figure 1 introduced in Section 2.2).

In light of RQ2a, we first regress, in separate models, the proximal and distal job perceptions on the offered job characteristics as well as on the applicant and current job characteristics (discussed in Section 2.3) as controls. Just as is the case for those in Table 4, the coefficient estimates of the possibility to telework in the offered job can be given a causal interpretation due to the experimental manipulation of this variable. The results are presented in Table 5.

<Table 5 about here>

Where the expected proximal perceptions of the job offers is concerned, we find that a greater possibility to telework has a positive effect on the perceived work-life balance (β = .015, p < .01), work scheduling autonomy (β = .011, p < .01), work methods autonomy (β = .009, p < .01), and decision-making autonomy (β = .008, p < .01) but a small negative effect on the perceived relationship quality with co-workers (β = -.004, p < .01) (all at the 1% significance level). We find no significant effect of a greater possibility to telework on the perceived relationship quality with the supervisor (p > .10).

Where the expected distal job perceptions is concerned, we observe that a greater possibility to telework has a positive effect on the perceived job satisfaction (β = .010, p < .01), productivity (β = .007, p < .01), and minimisation of stress (β = .006, p < .01) at the 1% significance level as well as on the perceived professional development (β = .003, p < .05) and commitment (β = .003, p < .05) at the 5% significance level. We find no evidence for an effect of a greater possibility to telework on expected feedback (of supervisors or colleagues) and promotion chances (p > .10).

Our participants' expectations of the consequences of the possibility to telework are, in

general, consistent with the evaluations of experienced telework by employees in survey research. Gajendran and Harrison (2007) found a favourable effect of experienced telework on perceived autonomy, work-family conflict, job satisfaction, performance, turnover intent, and stress. In addition, the authors found no straightforward effects on perceived career prospects or on the quality of workplace relationships. Nevertheless, in case of highintensity telecommuting (more than 2.5 days a week), telework harmed relationships with co-workers. Our findings for perceived professional development and feedback are, however, not in line with our expectations. As Cooper and Kurland (2002) stated that work performed away from the conventional workplace rarely provides as many implicit learning opportunities that contribute to professional development as working on-site, we did not anticipate our participants to expect an increase in perceived professional development when the possibility to telework is greater. In addition, Carillo et al. (2020) mentioned the lack of feedback from managers as a major obstacle to epidemic-induced telework adjustments in France during the COVID-19 pandemic. Therefore, we expected a negative effect of a greater possibility to telework on perceived feedback, yet we do not find evidence for this.

To ascertain how the expected consequences of the possibility to telework are associated to job attractiveness (RQ2b), we employ the serial multiple mediation model (as discussed in Hayes, 2013) depicted in Figure 1 and discussed in Section 2.2. For this analysis, we group, by computing the average over the accompanying statements, the expected proximal job perceptions (Cronbach's alpha for internal consistency: α = .830) and the expected distal job perceptions (Cronbach's alpha for internal consistency: α = .865). Since, according to Gajendran and Harrison (2007), the proximal consequences of telework mediate the relationship between telework and the distal consequences of telework (as explained in Section 2.2), it is important to employ a mediation model that takes this serial character into account. Therefore, we estimate a serial multiple mediation analysis to investigate whether the relationship between the possibility to telework and job attractiveness is mediated by the proximal and distal job perceptions in serial. The result should be seen as an association rather than as a causal effect since the perceived proximal job perceptions and the perceived distal job perceptions are not experimentally controlled. Therefore, these job perceptions could correlate with unobserved factors (Van Belle et al., 2019). We find a significant positive indirect association of the possibility to telework on job

attractiveness passing through both 'Proximal job perceptions' and 'Distal job perceptions' in serial ($a_1d_{21}b_2 = 0.002$, p < .01). So indeed, the proximal job perceptions are associated with the distal job perceptions and these job perceptions mediate the relationship between possibility to telework and job attractiveness.

3.3 When, in particular, are employees more attracted by a greater possibility to telework?

In this subsection, we investigate when, in particular, employees are more attracted by a greater possibility to telework (RQ3). More specifically, we jointly investigate the broad set of moderators in the relationship between the possibility to telework and job attractiveness in the applicant characteristics (RQ3a), other offered job characteristics (RQ3b), and current job characteristics (RQ3c).

An answer to these questions can be found in Table 6, where we regress job attractiveness on offered job characteristics and control variables as well as on interactions between the possibility to telework and (i) applicant characteristics (model [1]), (ii) other offered job characteristics (model [2]), (iii) current job characteristics (model [3]), and (iv) all these characteristics combined (model [4]). We emphasise that only the coefficient estimates of the other offered job characteristics (model [2]) can be given a causal interpretation due to the lack of experimental manipulation of the applicant and current job characteristics.

<Table 6 about here>

First, we find that the more conscientious an applicant is, the less attracted he or she is to the possibility to telework ($\beta = -.003$, p < .05). A possible reason for this might be that, in some jobs, it is not possible to perform job tasks as effectively when teleworking compared to when working at the central work location, which makes teleworking less attractive to highly conscientious individuals (O'Neill et al., 2009; Evans et al., 2021; Moens et al., 2021).

Second, we show that the attractiveness of the possibility to telework depends on the offered net wage in the job offer compared to the current wage (β = .000, *p* < .05). That is, both beneficial job characteristics reinforce each other in increasing a job's attractiveness. Since applicants are in general prepared to give up some wage for the possibility to telework,

employers can compensate a lowered wage with the possibility to telework. Nevertheless, when employers want to create very attractive jobs, both a high possibility to telework and a high wage are to be combined.

Third, we find that employees that have been active in their current job less than twelve months are more attracted by the possibility to telework (β = .014, *p* < .05) compared to employees with a higher job tenure. When we analyse the expected proximal and distal job perceptions of employees with a job tenure of less than twelve months only (*n* = 180), we find that a greater possibility to telework has a positive effect on the expected work scheduling autonomy (β = .022, *p* < .01), work-life balance (β = .018, *p* < .01), and relationship quality with the supervisor (β = .011, *p* < .01) at the 1% significance level.

We do not find that the other applicant characteristics, offered job characteristics, or current job characteristics have a moderating role. Where applicant gender is concerned, our finding is in line with Thompson et al. (2015) and Maestas et al. (2018), but not with Mas and Pallais (2017), who found that women were willing to give up substantially more wages than men for the ability to work from home. Our finding is also inconsistent with He et al. (2021), who found that application rates especially among (married) females increased when location flexibility was offered (compared to when no flexibility is offered). In addition, in line with our results, Mas and Pallais (2017) also did not find a moderating role of the education level or current income in the valuation of telework, while Maestas et al. (2018) found that more highly educated and higher-earning employees possess a greater willingness to pay for the possibility to telework. Moreover, opposed to our findings, Thompson et al. (2015) showed that individuals with a strong preference for segmenting their work and non-work roles were significantly less attracted to organisations offering location flexibility than individuals with a preference for integrating those roles. Finally, while we do not find evidence for a moderating role of commuting time, Mas and Pallais (2017) did, but only from an hour-long round trip upwards (willingness to pay for homeworking was comparable when workers have 10- and 20- minute one-way commutes). The contradictions between our results and the results in some of these former experimental studies might be explained by the fact that, as indicated in Section 1 and Section 2.3, we jointly took an extensive list of potential moderators into account.

4. Conclusion

Due to the COVID-19 pandemic, many employers were obligated to allow their employees to telework. Thorough experimental research on the effect of the possibility to telework on job attractiveness is indispensable to employers in deciding to what extent they should continue offering telework possibilities in the (pandemic-free) future. That is, to deploy telework as effectively as possible, employers need fine-grained valuations of the possibility to telework as well as insights into why the possibility to telework attracts employees and when in particular this is the case. Unfortunately, existing research in this respect before our study could not be given a causal interpretation or was not specific enough to be useful to employers. By means of an innovative factorial survey experiment in which a high-quality sample of employees evaluated job offers with diverging characteristics, including a wide variation in telework possibilities, we addressed these limitations.

We found that 10 pp more telework possibilities led to a rise of 2.2 pp in job attractiveness. In addition, our experimental applicants were on average willing to give up an increase of 2.3 pp in wage in a new job for a 10 pp higher possibility to telework. Furthermore, our analyses provided evidence that the relationship between the possibility to telework and job attractiveness is approximately linear. We showed that the attractiveness of telework is explained by the fact that more telework possibilities yield higher expectations of several job perceptions in applicant evaluations. In particular, job offers with more potential telework hours were associated with expectations of a better work-life balance, more work-scheduling autonomy, a higher job satisfaction, more work methods autonomy, more decision-making autonomy, better productivity, and minimisation of stress. Nevertheless, we found that a higher possibility to telework in job offers led to a small decrease in the expected proximal job perception of relationship quality with co-workers. In addition, we found that the attractiveness to telework is higher when applicants were less conscientious or had a lower tenure in their current job. Finally, our results showed that telework possibilities and offered net wage reinforce each other in increasing a job's attractiveness.

Our research results elucidate that employers can utilise telework as an asset in their human resources policy. This is especially relevant in light of the actual war for talent. Our advice to employers who offer telework is threefold: (i) they should reassure applicants that they undertake initiatives to stimulate the relationship quality among co-workers, (ii) if employers want to create very attractive jobs, both a high possibility to telework and a high wage are to be combined, and (iii) employers should be aware that less conscientious employees are, in general, more attracted to telework, as a lower general productivity could result when self-selection of less conscientious employees in jobs with more telework is not well-monitored. In environments where teleworking jobs are not possible, it is especially important for employers to communicate on their efforts to facilitate work-life balance, work scheduling autonomy, work methods autonomy, and decision-making autonomy (as an increase in the possibility to telework in job offers has a positive effect on the expected evaluations of especially these job aspects).

We conclude this study by acknowledging two limitations of this research and by formulating related directions for future research. First, although recent studies showed that well-designed experiments employing hypothetical job offers in surveys lead to realistic results (as discussed in Section 2.2), some researchers might still worry about the external validity of our experiment. Replicating our experiment in the field could therefore strengthen our findings. More specifically, real applicants could be given job offers with experimentally controlled diverging characteristics, as for example in Mas and Pallais (2017), who employed an experiment with hypothetical job offers in the actual employment process for a national call centre. However, in contrast to that study, a wide variation in telework possibilities should be included in the job offers, and an extensive and structured investigation of mediators and moderators should be conducted (in line with our study). To fully counter concerns on external validity, such a field experiment should preferably include different types of job offers from multiple employers in different sectors to be able to generalise results to different types of jobs (with different types of employees searching for them).

Second, thanks to the random assignment specific to an experiment, the relationship between the possibility to telework and job attractiveness can be given a causal interpretation, as well as its relationship with the tested proximal and distal job perceptions. However, since these job perceptions are not experimentally manipulated themselves, the association of these job perceptions with job attractiveness might not be given a causal interpretation; the same is true with the moderating effects related to applicant and current job characteristics. Therefore, we are in favour of follow-up research in which exogenous variation in both the possibility to telework and the mediators is realised. Since this will be very difficult to accomplish for all mediators simultaneously, we call for research that focuses on the in-depth investigation of the relationships in our serial mediation model one by one.

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Figure 1. Regression coefficients and standard errors for the serial multiple mediator model



Note. The presented statistics are coefficient estimates with standard errors in parentheses for the serial multiple mediator model depicted, following the procedure discussed in Hayes (2013) (and discussed in Section 3.2). *c* stands for the total effect, *c'* for the direct effect, a_1b_1 and a_2b_2 for the indirect association of the possibility to telework on job attractiveness passing through only the mediator 'Proximal job perceptions' and 'Distal job perceptions' respectively, $a_1d_{21}b_2$ for the indirect association of the possibility to telework on job attractiveness passing through both the mediators 'Proximal job perceptions' and 'Distal job perceptions' in serial. The applicant and current job characteristics discussed in Section 2.3 are added as control variables. Standard errors are corrected for the clustering of the observations at the participant level. The confidence intervals for the mediation effects are based on 10,000 bootstrap samples. *** (**) ((*)) indicates significance at the 1% (5%) ((10%)) significance level.



Figure 2. The applicant characteristics, current job characteristics, and offered job characteristics investigated as moderators

Table 1. Applicant and current job characteristics of the participants: variable specification, descriptive statistics, and indication if the variable is a moderator in former experimental studies on telework attractiveness

Variable	Variable specification	Mean	SD	Moderator in former experimental study on telework attractiveness?
A. APPLICANT CHARACTERISTICS				
Age	Age of the employee.	39.902	10.723	Mas and Pallais et al. (2017) and Maestas et al. (2018)
Female gender	1 if the employee is female, 0 otherwise.	0.502	-	Thompson et al. (2015), Mas and Pallais et al. (2017), Maestas et al. (2018), and He et al. (2021)
Higher education	1 if higher education (bachelor, master, or post-university), 0 otherwise.	0.672	-	Mas and Pallais et al. (2017) and Maestas et al. (2018)
In a relationship	1 if the employee is in a relationship, 0 otherwise.	0.802	-	He et al. (2021): marital status
Number of inhabitant children	Number of inhabitant children in the family of the employee.	0.784	0.985	Mas and Pallais et al. (2017): young children
Private care responsibilities	Solís' (2017) indicator to measure the level of responsibility individuals have outside the work environment. It considers care for young children (less than 13 years old), care for other individuals (due to old age, disease, or another reason), studies (for a high school diploma, or for a bachelors, masters, or other degree) and the percentage of household chores carried out at home. Scores range between 0 and 100, where 100 is the highest level of responsibility.	25.440	15.188	Thompson et al. (2015): anticipated caregiving demands
Emotional stability		5.000	1.542	No
Extraversion		6.845	1.636	No
Agreeableness	Assessment of each personality trait based on the four items of the brief HEXACU	5.140	1.272	No
Conscientiousness		6.342	1.366	No
Openness to experience		5.502	1.645	No
Preference for segmentation of work and family roles	Degree to which individuals prefer to separate their home and work lives based on the four items of the Kreiner's (2006) Segmentation Preferences scale, evaluated on a scale from 0 to 10.	7.214	1.996	Thompson et al. (2015)
Ease of making family ends meet	Ease of making family ends meet, evaluated on a scale from 0 to 10.	7.400	1.674	Mas and Pallais et al. (2017): family income and Maestas et al. (2018): position in the wage distribution

B. CURRENT JOB CHARACTERISTICS				
Full-time	1 if the employee works full-time, 0 otherwise.	0.826	-	No
Private sector	1 if the employee works in the private sector, 0 otherwise.	0.642	-	No
Job tenure < 1 year	1 if the employee has a job tenure < 1 year, 0 otherwise.	0.072	-	No
Job resources related to job tasks	Average score of seven items, evaluated on a scale from 0 to 10. These items are grounded on the frequently employed 'work design questionnaire' constructed by Morgeson and Humphrey (2006) including an item for 'work scheduling autonomy', 'decision-making autonomy', 'work methods autonomy', 'task variety', 'task significance', 'task identity', and 'feedback from job' (all task characteristics).	7.042	1.262	No
Required knowledge in the job	Average score of five items, evaluated on a scale from 0 to 10. These items are grounded on the frequently employed 'work design questionnaire' constructed by Morgeson and Humphrey (2006) including an item for 'job complexity', 'information processing', 'problem solving', 'skill variety', and 'specialisation' (all knowledge characteristics).	6.941	1.458	No
Social character of the job	Average score of eight items, evaluated on a scale from 0 to 10. Six items are grounded on the frequently employed 'work design questionnaire' constructed by Morgeson and Humphrey (2006) including two items for 'social support' and one item for 'initiated interdependence', 'received interdependence', 'interaction outside organisation', and 'feedback from others' (all social characteristics). Two items are added: one for 'interaction inside organisation' and one for 'supervising responsibility'. The latter is included since Aguilera et al. (2016) state that managers might benefit more from telework as they experience higher tensions between work and private life (Guillaume & Pochic, 2009) and since Baltes et al. (1999) suggest that flexible work arrangements may not equally benefit managers.	6.002	1.351	No

Note. The number of observations (participants) is 500. No standard deviations are presented for binary variables.

 Table 2. Vignette factors and levels

Vignette factors	Vignette levels
Possibility to telework	{Maximum 0%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%}
Net wage compared to current wage	{20% less, 15% less, 10% less, 5% less, equal, 5% more, 10% more, 15% more, 20% more}
Temporal flexibility	{Fixed start and end time, flexibility in start and end time, time-independent work (as long as tasks are finished)}
Commuting time (round trip by car)	{10, 30, 50, 70, 90, 110, 130, 150, 170 minutes}

Note. The factorial product of the vignette levels (9 × 9 × 3 × 9) resulted in a vignette universe of 2,187 possible combinations. Using a D-efficient design, 500 vignettes were sampled from this universe (D-efficiency: 91.039; Auspurg and Hinz, 2014). The selected vignettes were grouped into 100 decks by randomly allocating five vignettes to one deck. These decks were then also randomly allocated to the participants. This guaranteed that the vignette factors were nearly orthogonal.

Table 3. Expected job perceptions and accompanying statement

Expected job perceptions	Statement
A. PROXIMAL JOB PERCEPTIONS	
Work scheduling autonomy	The job provides me with autonomy on how to schedule the work.
Decision-making autonomy	The job provides me with autonomy on making decisions.
Work methods autonomy	The job provides me with autonomy on the methods I use to complete the work.
Work-life balance	The balance between work and private life.
Relationship quality with supervisor	The relationship quality with the supervisor.
Relationship quality with co-workers	The relationship quality with the co-workers.
B. DISTAL JOB PERCEPTIONS	
Job satisfaction	The general satisfaction with the job.
Productivity	The extent to which you are able to be productive in the job.
Commitment	The feeling of commitment with the organisation.
Minimisation of stress	The extent to which you are able to minimise the work-related stress in the job.
Professional development	The extent to which you are able to develop professionally.
Feedback	The extent to which you receive feedback in the job (from supervisors or colleagues).
Promotion chances	The chances to get a promotion in the job.

Note. As explained in Section 2.2 Vignette design, these job perceptions are based on the meta-analysis of Gajendran and Harrison (2007). The participants were asked to give an (expected) evaluation of these statements on a scale from 0 to 10 (0 represents the worst possible evaluation and 10 represents the best possible evaluation).

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	(1)	(2)	(3)	(4)
Possibility to telework	0.022*** (0.002)	0.022*** (0.002)	0.025*** (0.006)	
Net wage compared to current wage	0.097*** (0.004)	0.097*** (0.004)	0.097*** (0.004)	
Commuting time	-0.024*** (0.001)	-0.024*** (0.001)	-0.045*** (0.003)	
Temporal flexibility				
Fixed start and end time (reference)				
Flexibility in start and end time	0.776*** (0.096)	0.789*** (0.097)	0.777*** (0.096)	0.756*** (0.096)
Time-independent work (as long as tasks are finished)	0.942*** (0.106)	0.944*** (0.107)	0.938*** (0.106)	0.931*** (0.105)
Possibility to telework squared * 1000			-0.035 (0.072)	
Net wage squared * 1000			0.170 (0.289)	
Commuting time squared * 1000			0.114*** (0.018)	
Possibility to telework 0% (reference)				
Possibility to telework 10%				0.578*** (0.193)
Possibility to telework 20%				0.443** (0.182)
Possibility to telework 30%				1.049*** (0.187)
Possibility to telework 40%				0.932*** (0.199)
Possibility to telework 50%				1.196*** (0.188)
Possibility to telework 60%				1.426*** (0.192)
Possibility to telework 70%				1.730*** (0.201)
Possibility to telework 80%				1.877*** (0.202)
Net wage 20% less compared to current wage				-1.763*** (0.174)
Net wage 15% less compared to current wage				-1.635*** (0.178)
Net wage 10% less compared to current wage				-1.196*** (0.177)
Net wage 5% less compared to current wage				-0.807*** (0.169)
Net wage equal compared to current wage (reference)				
Net wage 5% more compared to current wage				0.572*** (0.185)
Net wage 10% more compared to current wage				0.963*** (0.187)
Net wage 15% more compared to current wage				1.559*** (0.187)
Net wage 20% more compared to current wage				1.715*** (0.187)

Commuting time 10 minutes (reference)				
Commuting time 30 minutes				-0.568*** (0.182)
Commuting time 50 minutes				-1.397*** (0.175)
Commuting time 70 minutes				-2.129*** (0.174)
Commuting time 90 minutes				-2.639*** (0.192)
Commuting time 110 minutes				-3.023*** (0.191)
Commuting time 130 minutes				-3.250*** (0.191)
Commuting time 150 minutes				-3.524*** (0.191)
Commuting time 170 minutes				-3.816*** (0.208)
Control variables included	No	Yes	Yes	Yes
R ² (adjusted R ²)	0.394 (0.393)	0.411 (0.405)	0.418 (0.412)	0.424 (0.413)
Observations		2,50	0	

Note. The presented statistics are coefficient estimates with standard errors in parentheses for the linear regression analyses discussed in Section 3.1. When 'Yes' is indicated in the row 'Control variables included', the applicant and current job characteristics discussed in Section 2.3 are added as control variables. Standard errors are corrected for the clustering of the observations at the participant level. Intercepts are not presented. *** (**) ((*)) indicates significance at the 1% (5%) ((10%)) significance level.

		Dependent	t variable: pr	oximal job p	erceptions		Dependent variable: distal job perceptions						
	WSA	DMA	WMA	WLB	RQS	RQCW	JS	PROD	COMM	MOS	PD	FSOC	PC
Possibility to telework	0.011 ^{***} (0.002)	0.008 ^{***} (0.001)	0.009 ^{***} (0.001)	0.015 ^{***} (0.002)	-0.000 (0.001)	-0.004 ^{***} (0.001)	0.010 ^{***} (0.002)	0.007 ^{***} (0.001)	0.003 ^{**} (0.001)	0.006 ^{***} (0.001)	0.003 ^{**} (0.001)	-0.001 (0.001)	0.001 (0.001)
Net wage compared to current wage	0.014 ^{***} (0.003)	0.011 ^{***} (0.002)	0.012 ^{***} (0.002)	0.013 ^{***} (0.003)	0.008 ^{***} (0.003)	0.006 ^{***} (0.002)	0.044 ^{***} (0.003)	0.018 ^{***} (0.002)	0.018 ^{***} (0.003)	0.006 ^{**} (0.003)	0.010 ^{***} (0.002)	0.007 ^{***} (0.002)	0.013 ^{***} (0.003)
Commuting time	-0.005 ^{***} (0.001)	-0.003 ^{***} (0.001)	-0.004 ^{***} (0.001)	-0.014 ^{***} (0.001)	-0.003 ^{***} (0.001)	-0.003 ^{***} (0.001)	-0.011 ^{***} (0.001)	-0.007 ^{***} (0.001)	-0.006*** (0.001)	-0.007*** (0.001)	-0.003 ^{***} (0.001)	-0.003 ^{***} (0.001)	-0.002 ^{***} (0.001)
Temporal flexibility Fixed start and end time (reference)													
Flexibility in start and end time	0.420 ^{***} (0.071)	0.276 ^{***} (0.061)	0.311 ^{***} (0.066)	0.399 ^{***} (0.086)	0.100 [*] (0.057)	0.016 (0.058)	0.353 ^{***} (0.085)	0.271 ^{***} (0.070)	0.171 ^{**} (0.073)	0.269 ^{***} (0.071)	0.175 ^{***} (0.058)	0.096* (0.055)	0.186 ^{***} (0.061)
Time-independent work (as long as tasks are finished)	0.669 ^{***} (0.078)	0.338*** (0.063)	0.512 ^{***} (0.074)	0.505*** (0.096)	-0.075 (0.062)	-0.053 (0.063)	0.440 ^{***} (0.085)	0.296 ^{***} (0.074)	0.100 (0.073)	0.276 ^{***} (0.072)	0.192 ^{***} (0.062)	0.045 (0.062)	0.063 (0.066)
Control variables included	Yes	Yes	Yes	Yes	Yes	Yes	Yes						
R^2 (adjusted R^2)	0.267 (0.260)	0.326 (0.319)	0.273 (0.265)	0.168 (0.159)	0.144 (0.135)	0.132 (0.124)	0.216 (0.209)	0.165 (0.157)	0.234 (0.227)	0.167 (0.159)	0.256 (0.249)	0.205 (0.198)	0.202 (0.194)
Observations							2,500						

Table 5. Multivariate regression analyses with the proximal and distal job perceptions as outcome variables

Note. The presented statistics are coefficient estimates with standard errors in parentheses for the linear regression analyses discussed in Section 3.2. When 'Yes' is indicated in the row 'Control variables included', the applicant and current job characteristics discussed in Section 2.3 are added as control variables. Standard errors are corrected for the clustering of the observations at the participant level. Intercepts are not presented. *** (**) ((*)) indicates significance at the 1% (5%) ((10%)) significance level. The following abbreviations are used: WSA (Work scheduling autonomy), DMA (Decision-making autonomy), WMA (Work methods autonomy), WLB (Work-life balance), RQS (Relationship quality with the supervisor), RQCW (Relationship quality with co-workers), JS (Job satisfaction), PROD (Productivity), COMM (Commitment), MOS (Minimisation of stress), PD (Professional development), FSOC (Feedback supervisor or colleagues), and PC (Promotion chances).

Table 6. Multivariate regression analyses with job attractiveness as the outcome variable – Moderation analyse	Table 6	5. Multivariate reg	gression analyses with	job attractiveness as the	outcome variable – Moderation analy	/ses
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	(1)	(2)	(3)	(4)
Possibility to telework	0.007 (0.020)	0.015*** (0.005)	0.009 (0.013)	-0.017 (0.025)
Net wage compared to current wage	0.097*** (0.004)	0.083*** (0.007)	0.097*** (0.004)	0.084*** (0.007)
Commuting time	-0.024*** (0.001)	-0.026*** (0.002)	-0.024*** (0.001)	-0.026*** (0.002)
Temporal flexibility				
Fixed start and end time (reference)				
Flexibility in start and end time	0.793*** (0.097)	0.708*** (0.192)	0.790*** (0.097)	0.709*** (0.191)
Time-independent work (as long as tasks are finished)	0.945*** (0.108)	0.671*** (0.217)	0.938*** (0.107)	0.676*** (0.217)
A. MODERATION – APPLICANT CHARACTERISTICS				
Possibility to telework × Age	0.000 (0.000)			0.000 (0.000)
Possibility to telework × Female gender	-0.003 (0.004)			-0.003 (0.004)
Possibility to telework × Higher education	-0.006 (0.004)			-0.006 (0.004)
Possibility to telework × In a relationship	-0.003 (0.005)			-0.003 (0.005)
Possibility to telework × Number of inhabitant children	0.001 (0.002)			0.001 (0.002)
Possibility to telework × Private care responsibilities	0.000 (0.000)			0.000 (0.000)
Possibility to telework × Emotional stability	0.001 (0.001)			0.002 (0.001)
Possibility to telework × Extraversion	0.001 (0.001)			0.000 (0.001)
Possibility to telework × Agreeableness	0.000 (0.002)			0.000 (0.002)
Possibility to telework × Conscientiousness	-0.003** (0.001)			-0.003** (0.001)
Possibility to telework × Openness to experience	0.001 (0.001)			0.001 (0.001)
Possibility to telework × Preference for segmentation of work and family roles	0.001 (0.001)			0.001 (0.001)
Possibility to telework × Ease of making family ends meet	0.002* (0.001)			0.002 (0.001)
B. MODERATION – OTHER OFFERED JOB CHARACTERISTICS				
Possibility to telework × Net wage compared to current wage		0.000** (0.000)		0.000** (0.000)
Possibility to telework × Commuting time		0.000 (0.000)		0.000 (0.000)
Possibility to telework × Temporal flexibility				
Possibility to telework × Fixed start and end time (reference)				
Possibility to telework × Flexibility in start and end time		0.002 (0.004)		0.002 (0.004)

Possibility to telework × Time-independent work (as long as tasks are finished)		0.007 (0.005)		0.006 (0.005)
C. MODERATION – CURRENT JOB CHARACTERISTICS				
Possibility to telework × Full-time			0.001 (0.005)	0.003 (0.006)
Possibility to telework × Private sector			0.006 (0.004)	0.006 (0.004)
Possibility to telework × Job tenure < 1 year			0.014** (0.007)	0.014** (0.007)
Possibility to telework × Job resources related to job tasks			0.001 (0.002)	0.001 (0.002)
Possibility to telework × Required knowledge in the job			0.001 (0.002)	0.001 (0.002)
Possibility to telework × Social character of the job			-0.001 (0.002)	-0.001 (0.002)
Control variables included	Yes	Yes	Yes	Yes
R^2 (adjusted R^2)	0.414 (0.405)	0.413 (0.406)	0.412 (0.405)	0.418 (0.406)
Observations		2,50	00	

Note. The presented statistics are coefficient estimates with standard errors in parentheses for the linear regression analyses discussed in Section 3.3. When 'Yes' is indicated in the row 'Control variables included', the applicant and current job characteristics discussed in Section 2.3 are added as control variables. Standard errors are corrected for the clustering of the observations at the participant level. Intercepts are not presented. ******* (******) ((*****)) indicates significance at the 1% (5%) ((10%)) significance level.

Appendix B: Additional tables

 Table B1. Multivariate regression analyses with job attractiveness as the outcome variable using the restricted sample

	(1)	(2)	(3)	(4)
Possibility to telework	0.027*** (0.004)	0.027*** (0.004)	0.015 (0.015)	
Net wage compared to current wage	0.098*** (0.006)	0.096*** (0.006)	0.097*** (0.006)	
Commuting time	-0.024*** (0.002)	-0.024*** (0.002)	-0.044*** (0.006)	
Temporal flexibility				
Fixed start and end time (reference)				
Flexibility in start and end time	0.757*** (0.183)	0.751*** (0.182)	0.759*** (0.182)	0.745*** (0.184)
Time-independent work (as long as tasks are finished)	0.791*** (0.193)	0.793*** (0.189)	0.781*** (0.188)	0.809*** (0.186)
Possibility to telework squared * 1000			0.132 (0.158)	
Net wage squared * 1000			-0.289 (0.513)	
Commuting time squared * 1000			0.116*** (0.032)	
Possibility to telework 0% (reference)				
Possibility to telework 10%				0.551 (0.446)
Possibility to telework 20%				0.127 (0.430)
Possibility to telework 30%				1.058** (0.437)
Possibility to telework 40%				0.663 (0.465)
Possibility to telework 50%				1.349*** (0.435)
Possibility to telework 60%				1.626*** (0.429)
Possibility to telework 70%				1.707*** (0.421)
Possibility to telework 80%				2.179*** (0.416)
Net wage 20% less compared to current wage				-2.231*** (0.309)
Net wage 15% less compared to current wage				-2.077*** (0.323)
Net wage 10% less compared to current wage				-0.902*** (0.325)
Net wage 5% less compared to current wage				-1.146*** (0.319)
Net wage equal compared to current wage (reference)				

Net wage 5% more compared to current wage				0.270 (0.340)
Net wage 10% more compared to current wage				0.661** (0.326)
Net wage 15% more compared to current wage				1.146*** (0.335)
Net wage 20% more compared to current wage				1.476*** (0.319)
Commuting time 10 minutes (reference)				
Commuting time 30 minutes				-0.529* (0.305)
Commuting time 50 minutes				-1.311*** (0.311)
Commuting time 70 minutes				-2.100*** (0.305)
Commuting time 90 minutes				-2.687*** (0.320)
Commuting time 110 minutes				-2.529*** (0.313)
Commuting time 130 minutes				-3.725*** (0.318)
Commuting time 150 minutes				-3.015*** (0.309)
Commuting time 170 minutes				-3.786*** (0.338)
Control variables included	No	Yes	Yes	Yes
R^2 (adjusted R^2)	0.395 (0.391)	0.437 (0.420)	0.446 (0.427)	0.465 (0.435)
Observations		846		

Note. The restricted sample only contains evaluations of job offers whose offered percentage of the possibility to telework does not differ more than 20% from the maximum amount of telework possible in the current job. The presented statistics are coefficient estimates with standard errors in parentheses for the linear regression analyses discussed in Section 3.1. When 'Yes' is indicated in the row 'Control variables included', the applicant and current job characteristics discussed in Section 2.3 are added as control variables. Standard errors are corrected for the clustering of the observations at the participant level. Intercepts are not presented. ******* (******) ((*****)) indicates significance at the 1% (5%) ((10%)) significance level.

	(1)	(2)	(3)	(4)
Possibility to telework	0.021*** (0.002)	0.021*** (0.002)	0.024*** (0.007)	
Net wage compared to current wage	0.097*** (0.004)	0.096*** (0.004)	0.097*** (0.004)	
Commuting time	-0.024*** (0.001)	-0.024*** (0.001)	-0.046*** (0.003)	
Temporal flexibility				
Fixed start and end time (reference)				
Flexibility in start and end time	0.671*** (0.100)	0.688*** (0.100)	0.676*** (0.100)	0.657*** (0.100)
Time-independent work (as long as tasks are finished)	0.798*** (0.109)	0.805*** (0.109)	0.799*** (0.109)	0.793*** (0.108)
Possibility to telework squared * 1000			-0.039 (0.077)	
Net wage squared * 1000			0.225 (0.301)	
Commuting time squared * 1000			0.120*** (0.018)	
Possibility to telework 0% (reference)				
Possibility to telework 10%				0.647*** (0.197)
Possibility to telework 20%				0.526*** (0.185)
Possibility to telework 30%				1.102*** (0.189)
Possibility to telework 40%				0.945*** (0.204)
Possibility to telework 50%				1.186*** (0.195)
Possibility to telework 60%				1.394*** (0.197)
Possibility to telework 70%				1.625*** (0.207)
Possibility to telework 80%				1.919*** (0.208)
Net wage 20% less compared to current wage				-1.698*** (0.179)
Net wage 15% less compared to current wage				-1.688*** (0.179)
Net wage 10% less compared to current wage				-1.265*** (0.184)
Net wage 5% less compared to current wage				-0.741*** (0.174)
Net wage equal compared to current wage (reference)				
Net wage 5% more compared to current wage				0.524*** (0.187)
Net wage 10% more compared to current wage				0.946*** (0.189)
Net wage 15% more compared to current wage				1.546*** (0.192)
Net wage 20% more compared to current wage				1.708*** (0.200)

Table B2. Multivariate regression analyses with probability to accept the job as the outcome variable

Commuting time 10 minutes (reference)				
Commuting time 30 minutes				-0.702*** (0.190)
Commuting time 50 minutes				-1.387*** (0.190)
Commuting time 70 minutes				-2.218*** (0.177)
Commuting time 90 minutes				-2.794*** (0.203)
Commuting time 110 minutes				-3.078*** (0.200)
Commuting time 130 minutes				-3.293*** (0.193)
Commuting time 150 minutes				-3.550*** (0.197)
Commuting time 170 minutes				-3.896*** (0.208)
Control variables included	No	Yes	Yes	Yes
R^2 (adjusted R^2)	0.372 (0.371)	0.391 (0.385)	0.399 (0.393)	0.406 (0.395)
Observations		2,500		

Note. The presented statistics are coefficient estimates with standard errors in parentheses for the linear regression analyses discussed in Section 3.1. When 'Yes' is indicated in the row 'Control variables included', the applicant and current job characteristics discussed in Section 2.3 are added as control variables. Standard errors are corrected for the clustering of the observations at the participant level. Intercepts are not presented. *** (**) ((*)) indicates significance at the 1% (5%) ((10%)) significance level.

 Table B3. Multivariate regression analyses with job attractiveness as the outcome variable including relative offered job characteristics as additional independent variables

Possibility to telework	0.024*** (0.003)
Commuting time	-0.016*** (0.002)
Temporal flexibility	
Fixed start and end time (reference)	
Flexibility in start and end time	0.481*** (0.154)
Time-independent work (as long as tasks are finished)	0.445* (0.237)
Possibility to telework compared to current job	-0.003 (0.003)
Net wage compared to current wage	0.097*** (0.004)
Commuting time compared to current job	-0.008*** (0.002)
Temporal flexibility compared to current job	
Less temporal flexibility compared to current job	-0.409*** (0.153)
Equal temporal flexibility compared to current job (reference)	
More temporal flexibility compared to current job	0.258 (0.172)
Control variables included	Yes
R ² (adjusted R ²)	0.428 (0.421)
Observations	2,500

Note. The presented statistics are coefficient estimates with standard errors in parentheses for the linear regression analyses discussed in Section 3.1. When 'Yes' is indicated in the row 'Control variables included', the applicant and current job characteristics discussed in Section 2.3 are added as control variables. Standard errors are corrected for the clustering of the observations at the participant level. Intercepts are not presented. *** (**) ((*)) indicates significance at the 1% (5%) ((10%)) significance level.