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Work-Nonwork Interface and Career Success: Examining Behavioral and Affective Linking Mechanisms

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Abstract

Past research has illustrated that experiences at the work-nonwork interface are related to the achievement of objective and subjective career success. However, the mechanisms linking positive and negative work-nonwork experiences and career success have not received much attention. Based on the conservation of resources theory and the source attribution perspective, we propose behavioral (i.e., through career engagement) and affective (i.e., through positive and negative affect at work) mechanisms linking positive and negative work-nonwork experiences (i.e., work-to-nonwork enrichment and interference) to objective (i.e., salary) and subjective (i.e., career satisfaction) career success. The results of a time-lagged study ($N = 812$) performed over one year with three measurement waves with young employees (18–35 years old, 47% females) provided partial support for both mechanisms and showed that career engagement mediated the positive relation between work-to-nonwork enrichment and salary, as well as the positive relation between work-to-nonwork enrichment and career satisfaction. However, unexpectedly, work-to-nonwork interference was also positively associated with salary and career satisfaction through increased career engagement. Additionally, negative affect at work mediated the negative relation between work-to-nonwork interference and both career success dimensions, but this mediation was stronger for career satisfaction. The study implies that behavioral and affective mechanisms differentially link work-nonwork experiences and various forms of career success.

Keywords: work-nonwork enrichment, work-nonwork interference, affective mechanism, behavioral mechanism, career success

Introduction

Many people strive for successful work-life integration and career success. Thus, career development is increasingly characterized by a close intersection between work and nonwork domains (Greenhaus & Kossek, 2014). Work-nonwork experiences have important implications for employees because they can positively (through work-nonwork enrichment) or negatively (through work-nonwork interference) affect work outcomes and career success (e.g., Hoobler et al., 2010). Work-nonwork experiences can contribute to or hamper the attainment of subjective and objective career success because they can build or drain personal resources (Greenhaus & Kossek, 2014). Objective career success can be externally verified, for example, via salary (Hughes, 1937; 1958). By contrast, subjective career success refers to an individual's self-evaluation of their career satisfaction (see Ng & Feldman, 2014).

Previous research has supported a positive relation between work-nonwork enrichment and positive work outcomes, for example, increased job satisfaction (Shockley & Singla, 2011). Studies have also established links between work-nonwork interference and career success. Work-family interference was negatively related to salary (Wayne et al., 2017) and career satisfaction (Hoobler et al., 2010). These negative relations likely resulted from less engagement in the work role (e.g., reduced work performance) due to work-family interference (Hoobler et al., 2010). However, the relation between work-nonwork experiences and career success has received little attention, and the specific mechanisms underlying the links between positive and negative work-nonwork experiences and various forms of career success have gone largely unaddressed (Greenhaus & Kossek, 2014). Understanding such mechanisms could provide new insights into how work-nonwork experiences relate to career success. Such knowledge may help employees achieve satisfying careers and work-nonwork interfaces simultaneously.

In addition, how work-nonwork enrichment and career success are related remains unclear, despite the possibility that employees may profit from positive work-nonwork

experiences in terms of their careers. Because the work-nonwork interference and enrichment are not two ends of one dimension but, rather, two separate constructs (Fisher et al., 2009) that relate independently and differently to work-related outcomes (Koekemoer et al., 2017), we cannot infer findings for enrichment based on interference. Thus, previous research paints an incomplete picture of the relation between work-nonwork experiences and career success, predominantly focusing on work-nonwork interference and not integrating enrichment.

Examining the differential effects of the work-nonwork interface on objective versus subjective career success is important in understanding how objective and subjective career success can be attained (Spurk et al., 2019). This is critical because objective and subjective career success are conceptually different, i.e., externally verified versus subjectively evaluated, and may thus be differently affected by work-nonwork experiences. However, this possibility has not been addressed. Finally, more research on work-nonwork experiences referring to nonwork more broadly, rather than the family, is needed (Sirgy & Lee, 2018; Voydanoff, 2007). This could provide important insights into how career success is affected by work-nonwork experiences that are not limited to family, and which are relevant for a broad range of people, including those living without children or relatives.

To address these issues, this study investigated how work-to-nonwork experiences (work-to-nonwork enrichment and interference) are related to objective (salary) and subjective career success (career satisfaction). We build upon the conservation of resources theory (COR; Hobfoll et al., 2018) and the source attribution perspective (e.g., Kinnunen et al., 2006) to propose that changes in resources, i.e., behavioral and affective resources, transmit the effects of work-to-nonwork enrichment and interference to objective and subjective career success through behavioral and affective mechanisms (see also Greenhaus & Powell, 2006). Specifically, to link work-nonwork experiences with career success, we investigated a behavioral mechanism that occurs through career engagement, which refers to a general engagement in proactive career management behaviors that are important for career

success (Hirschi et al., 2014). We also propose an affective mechanism through positive and negative affect at work, which might enhance or reduce, respectively, career success (e.g., Holtschlag et al., 2018). We conducted a time-lagged study encompassing three measurement points over one year, with a focus on young employees at an early career stage. At an early career stage, employees generally face high demands in both the work (e.g., exploring and consolidating their careers) and nonwork domains (e.g., building a reliable partnership; Savickas, 2002; Super, 1996). Additionally, previous research shows that work-nonwork conflicts are particularly prevalent in midlife (Rantanen et al., 2012). Hence, many young employees at an earlier career stage experience increasing work-to-nonwork interference (Demerouti et al., 2012) and strive for work-life balance (Parry & Urwin, 2011). In sum, young employees are particularly likely to be affected in their career success by their work-nonwork experiences.

Our study makes three main contributions. First, we contribute to theorizing and empirical research on how and why work-nonwork experiences are linked with important career outcomes, such as career success. Thus, we apply and expand relevant theoretical perspectives (COR and the source attribution perspective) by integrating various work-nonwork experiences and career-related outcomes. Second, we contribute to research on career success by offering new insights into differential predictors of objective versus subjective career success. Third, we contribute to research by expanding work-family experiences to work-nonwork experiences and thus integrate the experiences of individuals at an early career stage, when many do not yet have children. The insights gained from our study may also provide valuable information about how work-nonwork experiences translate into a successful career and, thus, how various dimensions of career success can be fostered.

Work-to-nonwork Enrichment and Interference and Career Success

Work and nonwork are two interconnected domains. Thus, experiences in the work domain can spill over to the nonwork domain, and *vice versa* (Grzywacz & Marks, 2000).

Here, we specifically focus on enrichment and interference from work to nonwork because previous research has supported the *source attribution perspective*, which states that the primary effects of the work-nonwork interference (and enrichment) lie in the domain in which the interference (or enrichment) originated (Amstad et al., 2011; Shockley & Singla, 2011). This implies that the work-to-nonwork direction is most meaningful to study when focusing on work-related outcomes, such as career success.

Behavioral Mechanism Between Work-to-nonwork Experiences and Career Success

To achieve career success, it is important for employees to proactively shape their careers because contemporary careers are less predictable and often characterized by rapid changes (Direnzo & Greenhaus, 2011). By investing in one's career through proactive career behaviors, new resources can be gained, such as skills, knowledge, and social support, which can translate into positive outcomes (Hobfoll et al., 2018; see also Savickas & Profeli, 2012), such as career success (Ng et al., 2005). In the present paper, we focus on career engagement as representing engagement in various proactive behaviors, e.g., career planning, networking behaviors, and skill development, that promote career success (Hirschi et al., 2014).

Following previous research suggesting that engagement in proactive career behaviors is favorable for attaining career success (for an overview, see Wilhelm & Hirschi, 2019), we suggest that career engagement may increase objective and subjective career success. For *objective* career success, this may occur because if employees invest resources and show that they are engaged at work when exhibiting career engagement; supervisors may evaluate such behaviors as a sign of competence and work motivation (Raabe et al., 2007; Spence, 1973) and honor it with a higher salary (Hoobler et al., 2010). Furthermore, employees who engage in proactive career behaviors will accumulate more knowledge and skills relevant to good work performance (Tharmaseelan et al., 2010), which will be rewarded with a higher salary. Career engagement may also promote *subjective* career success because this engagement helps in attaining jobs and positions that are personally meaningful and correspond to

personal goals, values, and skills (Parker & Collins, 2010). Further, proactive career behaviors are likely to be experienced as volitional and self-endorsed and, thus, satisfy the need for autonomy and feelings of being in control of one's career, which will likely result in higher career satisfaction (see Smale et al., 2019).

Relying on the source attribution perspective (e.g., Shockley & Singla, 2011), we moreover presume that work-to-nonwork enrichment is related to the extent to which someone engages in proactive career behaviors. Research suggests that work-to-nonwork enrichment results in more behavioral investment in the work role because the positive experiences of enrichment are attributed to work, leading to an increase in motivation to invest in the work role (e.g. Demerouti et al., 2010; Kinnunen et al., 2006). In addition, based on COR theory, work-to-nonwork enrichment may be positively related to career engagement because enrichment increases available resources (e.g., energy), which can be spent engaging in career behaviors (e.g., Demerouti et al., 2016; Kinnunen et al., 2006).

We thus argue that proactive career behaviors are one link in the relation between work-to-nonwork enrichment and career success. Previous research has found links between work-to-nonwork enrichment and work behaviors (Kinnunen et al., 2006), as well as links between work behaviors and career success (e.g., Hoobler et al., 2010), supporting the assumption of a behavioral linking mechanism between work-nonwork enrichment and career success but not proactive career behavior.

Hypothesis 1. There is an indirect, positive effect on the part of work-to-nonwork enrichment on (a) salary and (b) career satisfaction through career engagement.

Conversely, the source attribution perspective (Amstad et al., 2011; Shockley & Singla, 2011) suggests that work-to-nonwork interference should be related to having less motivation to engage in the work role and, hence, reduced career engagement because negative work-to-nonwork experiences are blamed on the work role. Moreover, based on COR theory, work-to-nonwork interference may be related to less behavioral investment in

the work domain (Amstad et al., 2011; Hoobler et al., 2010) because resources are lost and, thus, fewer resources (e.g., energy and time) are available to invest (Hobfoll et al., 2018) and motivation to engage in the work role (Kinnunen et al., 2006) and thus career engagement are reduced. This disengagement may concurrently translate into less objective and subjective career success. Specifically, when employees do not invest in their careers, due to work-to-nonwork interference, supervisors could attribute low work motivation to them (Raabe et al., 2007; Spence, 1973), leading to reduced salary progression. Furthermore, employees may miss out on new positions and jobs with higher salaries within or across organizations because they do not engage with their careers (e.g., Hoobler et al., 2010). Furthermore, career satisfaction may decrease, for example, because employees who do not engage with their careers may not attain jobs that are satisfying (e.g., Tims & Akkermans, 2020). Thus, a decrease in career engagement may link work-to-nonwork interference with less objective and subjective career success.

Hypothesis 2. There is an indirect, negative effect of work-to-nonwork interference on (a) salary and (b) career satisfaction through career engagement.

Affective Mechanism Between Work-to-nonwork Experiences and Career Success

In addition to their relation with career behaviors, work-to-nonwork experiences also relate to affective outcomes in the work domain (e.g., Brummelhuis & Bakker, 2012). In fact, COR theory (Hobfoll et al., 2018) proposes that people experience more positive affective states due to resource gain (i.e., work-to-nonwork enrichment), and more negative affective states due to resource loss (i.e., work-to-nonwork interference) which can lead to more or less positive outcomes (i.e., career success). Previous research has supported the relations between work-to-nonwork enrichment/interference and affective reactions in the work domain (e.g., Wayne et al., 2004). For example, MacNall et al. (2010) found a positive relation between work-family enrichment and affective work commitment. Furthermore, work-to-nonwork interference has been associated with increased emotional exhaustion (Reichl et al., 2014).

Previous research has also found that specific affective states, e.g., job satisfaction and life stress, are related to career success (e.g., Lee et al., 2017), but this has not been shown for basic affective states thus far.

In our study, we focus on the most basic affective states in the work domain in the form of positive and negative affect at work (Warr et al., 2014). These basic affective states underlie many more specific affective experiences (e.g., affective organizational commitment and exhaustion; Allen & John, 1990; Maslach & Jackson, 1981) and could thus have a broad impact on career success. Watson et al. (1988) define positive affect at work as a “state of high energy, full concentration, and pleasurable engagement” and negative affect as a “general dimension of subjective distress and unpleasurable engagement that subsumes a variety of aversive mood states” (p. 1,063). Previous research has found that resource-providing factors related more strongly to work-nonwork enrichment than to interference, whereas resource-depleting factors related more strongly to work-nonwork interference than to enrichment (Lapierre et al., 2018). This suggests that work-to-nonwork enrichment may facilitate positive affect at work because resources are gained, for which the work domain is credited, while work-to-nonwork interference may provoke negative affect at work due to resource loss, for which the work domain is blamed (e.g., Kinnunen et al., 2006).

Specifically, work-to-nonwork enrichment may influence objective and subjective career success via positive affect. For example, supervisors may take an employee’s positive affect at work as a signal that they are engaged at work (e.g. Wang et al., 2017) and capable of managing the job well (Isen, 2002; Spence, 1973), thereby ultimately contributing to a higher salary. In addition, employees who experience more positive affect at work may feel energized and motivated at work (Isen & Reeve, 2005; Watson et al., 1988) and use broader action strategies due to their positive emotions (Fredrickson et al., 2000), resulting in better job performance and, in turn, higher salary (e.g., Hoobler et al., 2010). Furthermore, positive affect at work may also predict subjective career success because affective states color the

evaluation and interpretation of events (Forgas, 2001) and, thereby, affect satisfaction evaluations. This may occur because individuals use their affective state as information with which to evaluate how satisfied they are (Schwarz & Clore, 1983), for example, with their careers. Moreover, positive affective states at work may indicate that personal work goals are being met and work life is going well (e.g., Cantor et al., 1991), thereby increasing career satisfaction (e.g., Abele & Spurk, 2009). Thus, we suggest that positive affect at work links work-to-nonwork enrichment with objective and subjective career success.

Hypothesis 3. There is an indirect positive effect on the part of work-to-nonwork enrichment on (a) salary and (b) career satisfaction through positive affect at work.

In contrast, work-to-nonwork interference is associated with resource loss, and thus, more negative affective states should be experienced in the work domain (e.g., Kinnunen et al., 2006). This, in turn, could translate into less objective and subjective career success. Specifically, due to more negative affect at work, employees may be restricted in their performance repertoires (Fredrickson et al., 2000) and be less motivated to perform their jobs (Gillet et al., 2013), resulting in reduced work performance and a decrease in salary (e.g., Hoobler et al., 2010). Furthermore, employees may also experience less career satisfaction because they experience negative affective states at work, which color their evaluation of their career negatively (e.g., Forgas, 2001). Thus, we argue that more negative affect at work may link work-to-nonwork interference with less objective and subjective success.

Hypothesis 4. There is an indirect negative effect of work-to-nonwork interference on (a) salary and (b) career satisfaction through negative affect at work.

Examining Differential Effects on Objective Versus Subjective Career Success

Spurk et al. (2019) review of career success concluded that studies on career success should focus on the differential mechanisms behind objective versus subjective career success because it is reasonable to suggest that they are at least partially predicted by different variables. Concerning our proposed model, we suggest that career behaviors relate more

strongly to objective success than to subjective success. This is because career engagement may result in increased job performance and a change of jobs within or across organizations, which then has a strong potential to enhance objective success, such as salary (e.g., Hoobler et al., 2010). Furthermore, career engagement can be expected to be more indirectly related to career satisfaction through the potential attainment of career goals and, thus, relate less directly to subjective career success. Affective states at work may, contrariwise, be more strongly related to subjective as compared to objective career success. This is because emotions and affective states are strongly connected with cognitive evaluations, such as satisfaction (Fisher, 2000). Furthermore, supervisors may not recognize emotional reactions at work, e.g., positive or negative affective states, and thus, they may less commonly result in extrinsic rewards, such as salary gains. To conclude, differential effects on objective versus subjective career success may occur. Thus, behavioral engagement may be more relevant for objective career success, and positive and negative affect may be more relevant for subjective career success.

Hypothesis 5. The indirect effects of work-to-nonwork experiences on career success through (a) career engagement are stronger for objective as compared to subjective career success. Furthermore, the indirect effects of work-to-nonwork experiences on career success through (b) positive and negative affect at work are stronger for subjective as compared to objective career success.

Method

Participants and Procedure

Participants were recruited via a German panel provider and had to be employed for at least 17 hours per week (approximately 50 percent of a full-time position), be in their early career stage (Demerouti et al., 2012), aged between 18 and 35 years, and work in private industry (not self-employed or working students). The data included in this study were part of a larger research project about career development that assessed all study variables at all time

points. For this study, participants provided demographic information and answered all scales, including measures of work-to-nonwork experiences (work-to-nonwork enrichment and interference), career engagement, positive and negative affect at work, salary, and career satisfaction at Time 1 (T1). Six months later, at Time 2 (T2), the participants reported their career engagement and positive and negative affect at work. At Time 3 (T3), another six months later, participants provided information on the career success measures, i.e., salary and career satisfaction. Six months to one year is a reasonable amount of time in which to expect changes in the study constructs, and such time lags are often used in research on career development (e.g., Duffy et al., 2018).

Overall, the panel service invited 2,786 individuals to participate in the survey at T1, with a response rate of $N = 1,554$ (55.7%). We retained 812 participants who completed the questionnaire in an appropriate manner (i.e., no speeding and straight-lining; Zhang & Conrad, 2014) and matched the sampling criteria. These participants were contacted again at T2 and T3. At T2, 572 participants (70%) and, at T3, 413 participants (51%) responded to the questionnaire, which is within the commonly observed range for this type of data collection (Baruch & Holtom, 2008). We retained all participants from T1 in the final sample and accounted for missing data by using the full information maximum likelihood method (FIML). In fact, FIML has higher statistical power than pair- or list-wise deletion and avoids bias (Little & Rubin, 2019). Moreover, using FIML in time-lagged studies with up to 50% missing data has been supported (Newman, 2003).

The final sample of 812 participants (47% female) was, on average, 30.1 years old ($SD = 2.76$). About one-quarter (29%) had one to four children who were aged between 1 and 17 years, with 79% of the children living at home. In terms of education, 64.2% had a vocational qualification, 31.5% had a Bachelor's or Master's degree, and 4.3% did not have any vocational qualification. The participants worked in various fields: retail services (38%),

manufacturing (23%), social services (15%), commerce (15%), financial services (8%), and other fields (1%).

Measures

In cases where no German language version of a measure existed, an author and two doctoral students independently translated the used scales from their original English version into German and resolved differences in a consolidatory way (van de Vijver et al., 1997). Scales were answered on a five-point Likert-type response scale ranging from 1 (*not at all*) to 5 (*almost all of the time / very much*) unless mentioned otherwise. Means, standard deviations, Cronbach's alphas, and correlations between the assessed constructs are shown in Table 1.

Work-to-nonwork enrichment and interference. We used the work enhancement of personal life and work interference with personal life scales from Fisher et al. (2009) to assess work-to-nonwork enrichment and interference. The work enhancement of personal life scale included three items (e.g., "My job gives me energy to pursue activities outside of work that are important to me"). The work interference with personal life scale included five items (e.g., "My personal life suffers because of my work").

Career engagement. To assess career engagement, we used the German career engagement scale by Hirschi et al. (2014). Participants indicated on nine items how often they engaged in various career behaviors within the last six months (e.g., "actively sought to design your professional future").

Affective states at work. We used two subscales of the Multi-Affect Indicator by Warr et al. (2014) to measure high-activated positive affect and low-activated negative affect at work with four items per subscale. High-activated positive and low-activated negative affect were chosen because they are especially important for positive and negative work outcomes, respectively (Warr et al., 2014). Participants indicated how often they felt a particular positive affective state (e.g., "joyful") or negative affective state (e.g., "hopeless")

at work within the last six months with four items per subscale on a seven-point response scale ranging from 1 (*never*) to 7 (*always*).

Salary. Participants indicated their income before taxes in the last month in steps of 500 Euro from 1 (< 500 Euro) to 21 ($\geq 10,000$ Euro). In line with previous research (e.g., Poon, 2004), salary was transformed by using a natural log transformation for all analyses because a non-normal distribution was indicated at each measurement point (T1: $Z_{\text{skewness}} = 20.53, p < .001$; T3: $Z_{\text{skewness}} = 13.21, p < .001$).

Career satisfaction. We used the German career satisfaction scale derived from Greenhaus et al. (1990) by Abele and Spurk (2009). This scale included five items (e.g., “I am satisfied with the progress I have made toward meeting my overall career goals”).

Control variables. Weekly work hours, changing organizations between T1 and T3 (1 = *no change*, 2 = *change*), gender (1 = *female*, 2 = *male*), age in years, and having children (1 = *no children*, 2 = *having children*) were considered as control variables. However, including these controls did not significantly change the model results, i.e., the direction, strength, and significance of the coefficients remain the same, and the controls were thus not included in the final model to improve power and interpretability of the results (Bernierth & Aguinis, 2016).

Results

Analytical Approach

To support the appropriateness of the following time-lagged analyses, we first tested measurement invariance. Relying on Vandenberg and Lance (2000), career engagement, positive and negative affect at work (across T1 and T2), and career satisfaction (across T1 and T3) achieved scalar invariance (detailed results in Appendix 1).

The proposed model of career engagement, with positive and negative affect at work mediating the relations between work-to-nonwork experiences and career success, was examined with latent variables in a structural equation model (SEM) in MPlus7 (Muthén &

Muthén, 1998–2012). For the mediator variables (i.e., T2 career engagement; T2 positive and negative affect) and the outcome variables (i.e., T3 salary; T3 career satisfaction), we controlled for their respective baseline levels at T1. We controlled for the T1 levels to align our tested model with the theoretical expectations about change in our focal constructs (Ployhart & Vandenberg, 2010). In fact, change in career success outcomes often unfolds over longer periods, such as within a year (i.e., from T1 to T3), for example, because wage negotiations typically occur yearly. The total indirect effects were evaluated based on a bias-corrected bootstrap analysis (MacKinnon et al., 2004). The recommendations of Hu and Bentler (1998) were applied to interpret the fit indices. The measurement model ($\chi^2 = 2670.317$, $df = 1313$, $p < .01$, RMSEA = .036 [.034, .038], CFI = .955, TLI = .948, SRMR = .051) and the proposed structural mediation model (Figure 1; $\chi^2 = 2792.492$, $df = 1341$, $p < .01$, RMSEA = .037 [.035, .038], CFI = .949, TLI = .946, SRMR = .061) showed good model fit.

 INSERT TABLE 1 ABOUT HERE

Figure 1 illustrates the direct paths, whereas the indirect effects are described below.

Behavioral Mechanism

Confirming Hypothesis 1a, the positive relation between work-to-nonwork enrichment at T1 and salary at T3 was significantly explained through career engagement at T2 ($\beta = .02$, 95% bias-corrected CI [.002, .037]). Also, the indirect effect of work-to-nonwork enrichment at T1 on career satisfaction at T3 through career engagement at T2 was significant ($\beta = .01$, 95% bias-corrected CI [.001, .038]), supporting Hypothesis 1b. Concerning work-to-nonwork interference, the indirect effect of work-to-nonwork interference at T1 on salary at T3 through career engagement at T2 was significant ($\beta = .01$, 95% bias-corrected CI [.002, .030]), but positively so, thus refuting Hypothesis 2a. Also, Hypothesis 2b was not supported, because

the indirect effect of work-to-nonwork interference at T1 on career satisfaction at T3 through career engagement at T2 was significant and positive ($\beta = .01$, 95% bias-corrected CI [.001, .032]). In sum, the results showed that career engagement acted as a behavioral mechanism between work-to-nonwork enrichment and salary and career satisfaction. However, work-to-nonwork interference also positively predicted both career success dimensions through career engagement, in contrast to the proposed negative effects.

Affective Mechanism

Neither the relation between work-to-nonwork enrichment at T1 and salary at T3 ($\beta = -.00$, 95% bias-corrected CI [-.031, .028]) nor the indirect effect of work-to-nonwork enrichment at T1 on career satisfaction at T3 ($\beta = .02$, 95% bias-corrected CI [-.011, .058]) was significantly explained through positive affect at T2, thereby refuting Hypotheses 3a and 3b, respectively. With respect to work-to-nonwork interference, the indirect effect of work-to-nonwork interference at T1 on salary at T3 ($\beta = -.02$, 95% bias-corrected CI [-.043, -.002]) and the indirect effect of work-to-nonwork interference at T1 on career satisfaction at T3 through increased negative affect at T2 ($\beta = -.04$, 95% bias-corrected CI [-.064, -.014]) were significant, supporting Hypotheses 4a and 4b, respectively. In sum, the results showed that negative affect at work acted as an affective mechanism between work-to-nonwork interference and salary and career satisfaction. However, positive affect at work did not act as an affective mechanism between work-to-nonwork enrichment and salary and career satisfaction.¹

INSERT FIGURE 1 ABOUT HERE

Differential Effects

To address Hypotheses 5a and 5b and evaluate whether career engagement and affective states at work, as well as their mediating effects, are differentially relevant for

objective versus subjective career success, we first evaluated whether their direct effects on the outcome variables are significantly different (Ullman & Bentler, 2003). Second, we evaluated whether the mechanisms (behavioral versus affective mediation effect) are differently important for objective and subjective career success, that is, whether the behavioral and affective mechanisms are differently relevant to explaining the link between work-to-nonwork experiences and objective and subjective career success.

In detail, we first compared an unconstrained model to three constrained models (Table 2). The unconstrained model (Model 0) allowed career engagement at T2 and positive and negative affect at work at T2 to freely regress on salary and career satisfaction at T3. In the first constrained model (Model 1), the paths from career engagement at T2 to salary and career satisfaction at T3 were constrained to be equal. In the second constrained model (Model 2), the paths from positive affect at work at T2 to salary and career satisfaction at T3 were constrained to be equal. In the third constrained model (Model 3), the paths from negative affect at work at T2 to salary and career satisfaction at T3 were constrained to be equal. A model fit comparison was conducted via the Satorra-Bentler comparison of χ^2 ($\Delta\chi^2$; Asparouhov & Muthén, 2010) with the robust maximum likelihood estimator. The unconstrained Model 0 was not superior to any of the constrained models (Table 2), supporting the more parsimonious models of equal effects. Therefore, career engagement and positive/negative affect at work showed no significant differences in their relations to salary and career satisfaction.

INSERT TABLE 2 ABOUT HERE

Secondly, we evaluated whether the behavioral mechanism through career engagement on salary was stronger than that on career satisfaction, as well as whether the affective mechanism through positive or negative affect at work was stronger on career satisfaction

than on salary. We built difference scores according to Hayes (2015) and thus subtracted the indirect effects on salary (indirect effects A in Table 3) and career satisfaction (indirect effects B in Table 3) from one another. Specifically, concerning career engagement as a linking mechanism, we subtracted the indirect effect of career engagement linking work-to-nonwork enrichment with salary from the indirect effect of career engagement linking work-to-nonwork enrichment with career satisfaction. Furthermore, we subtracted the indirect effect of career engagement linking work-to-nonwork interference with career satisfaction from the indirect effect of career engagement linking work-to-nonwork interference with salary. These difference scores were tested for significance. The results showed no significant difference between the behavioral mechanism predicting salary versus career satisfaction for work-to-nonwork enrichment ($\Delta b = -.01$, 95% bias-corrected CI [-.036, .001]) or for work-to-nonwork interference ($\Delta b = -.01$, 95% bias-corrected CI [-.036, .001]), refuting Hypothesis 5a and indicating that career engagement was equally relevant to linking experiences at the work-nonwork interface to objective and subjective career success.

We further assessed differences in the indirect effects of positive and negative affect at work linking work-to-nonwork experiences with career satisfaction and with salary using the same procedure. The difference score for work-to-nonwork enrichment ($\Delta b = .02$, 95% bias-corrected CI [-.010, .061]) was not significantly different from zero, indicating that career satisfaction and salary were equally predicted by the affective mechanism. However, the difference score for negative affect linking work-to-nonwork interference and career success ($\Delta b = -.04$, 90% bias-corrected CI [-.075, -.014]) was significant, partially supporting Hypothesis 5b. Thus, the results indicate that work-to-nonwork interference was more strongly linked with career satisfaction than with salary through increased negative affect at work.

INSERT TABLE 3 ABOUT HERE

Discussion

The present study aimed to contribute to work-nonwork and career success research by clarifying the relation between work-to-nonwork experiences and different forms of career success. Specifically, we investigated a behavioral mechanism through career engagement and an affective mechanism through positive and negative affect at work. The results partially support the behavioral mechanism between work-to-nonwork experiences and career success. Specifically, work-to-nonwork enrichment was positively related to salary gain and increased career satisfaction through increased career engagement. This result is in line with the source attribution perspective (e.g., Kinnunen et al., 2006), which states that work-to-nonwork enrichment fosters more behavioral engagement in the sending domain, which is the work domain in the current context. Additionally, the positive relations between career engagement and salary and career satisfaction, respectively, are in line with previous research, which has linked career self-management behaviors and objective and subjective career success (e.g. Wilhelm & Hirschi, 2019). Overall, these results support the contention that work-to-nonwork enrichment may facilitate a resource gain spiral, that is, an accumulation of resources (Hobfoll et al., 2018), which ultimately fosters objective career success outcomes, such as a higher salary, and subjective career success outcomes, such as higher career satisfaction.

However, contrary to our expectation, the relations between work-to-nonwork interference and salary, on the one hand, and career satisfaction, on the other hand, were positively mediated through career engagement, not negatively, as we would have expected. Employees with work-to-nonwork interference enacted *more* career engagement, which, in turn, related to a higher salary and being more satisfied with their careers. These unexpected findings may be explained by the fact that employees use proactive behaviors, such as career engagement, to cope with resource loss due to work-to-nonwork interference and thereby

prevent further resource loss (Aspinwall & Taylor, 1997). Specifically, according to the second principle (the resource investment tenet) of COR theory (Hobfoll et al., 2018), individuals are motivated to invest resources to recover from losses, as well as to gain new resources. Thus, after losing resources due to work-to-nonwork interference, employees may seek new resources to recover from their losses, for example, by investing in their careers through career engagement. In fact, Bolino and Turnley (2005) found a positive relation between work-to-nonwork interference and personal initiative as a form of proactive behavior in their cross-sectional study. Further, employees who value their work identity or experience a calling might focus on their career engagement (see also Hirschi, 2012) despite resource loss due to work-to-nonwork interference. For example, Britt (2003) found that work identity might positively relate to work engagement under demanding circumstances.

Also, the affective mechanism was partially supported. Specifically, work-to-nonwork interference is negatively related to salary and career satisfaction through increased negative affect at work. This result is in line with COR theory (Hobfoll, 1989), which proposes that a loss of resources results in negative outcomes, such as negative affect. This result is also in line with the source attribution perspective, which states that a loss of resources should be attributed to the originating domain and thus result in a negative affective reaction at work (e.g. Shockley & Singla, 2011). This may lead to lower work motivation, reduce job performance, and hinder salary gains. Moreover, negative affective states may color the evaluation of one's career success negatively and decrease career satisfaction (Fisher, 2000). Our results are in line with the previous research, which has found positive relations between work-to-nonwork interference and negative affective states (e.g, depression, anxiety, and stress; Amstad et al., 2011), as well as between negative affective states (e.g., stress; Lee et al., 2017) and career outcomes. The finding adds to this line of research by highlighting how a generally negative affective state at work can link negative work-nonwork experiences with reduced objective and subjective career success.

However, work-to-nonwork enrichment was not related to an increase in salary and career satisfaction through more positive affect at work, as we expected. This may be explained by the primacy of loss principle (see COR theory; Hobfoll et al., 2018), meaning that a resource loss (e.g., work-to-nonwork interference) is interpreted as being more important than a resource gain (e.g., work-to-nonwork enrichment) and, thus, the negative event may override all/most positive events at that time and foster negative (but not positive) affect. Thus, negative affective states at work may be more important, i.e., more detrimental, for career success as compared to the potentially positive effects of positive states.

Finally, for the last hypothesis, concerning whether career engagement and affect at work differentially relate to objective and subjective career success, the results indicate that career engagement is equally related to objective and subjective career success. This indicates that career behaviors are equally instrumental in achieving objective and subjective career success. That is, career behaviors can result in changes in work conditions or jobs that lead to salary gains (e.g., a promotion), and can help employees achieve personally valued career goals, which can foster a positive evaluation of one's career progress and, ultimately, career satisfaction. However, negative affect, but not positive affect, at work was more strongly related to career satisfaction than to salary. This is in line with past research illustrating that negative affective states are especially strongly interconnected with cognitive evaluations, such as satisfaction (Fisher, 2000). Furthermore, affective states may be harder to recognize for supervisors as compared to behaviors, especially negative ones that employees may be more reluctant to show to their supervisor, which may explain why they did not contribute as much to salary gain.

Implications for Theory and Practice

This research has several theoretical implications. First, our study contributes to the work-nonwork literature and theory building in that regard. We extend this research by showing that experiences at the work-nonwork interface are not only pivotal for reducing

strain and increasing well-being at home and in the workplace (e.g., Amstad et al., 2011; McNall et al., 2010) but also key determinants of successful careers. Therefore, our findings underline the relevance of COR theory (Hobfoll et al., 2018) in work-nonwork settings and implicate that COR theory might be expanded to include theorizing about how individuals can use the work-nonwork interface to induce a resource gain-spiral. Specifically, our findings indicate that individuals can benefit from work-nonwork experiences, such as work-nonwork enrichment, to accumulate career resources for career success through engagement in career behaviors. It also expands the previously narrow view on the (negative) consequences of work-nonwork interference on career outcomes and shows that positive experiences at the work-nonwork interface are also relevant. Namely, our findings highlight a behavioral, but not affective, mechanism through which work-to-nonwork enrichment translates into more objective and subjective career success. Future work-nonwork theories may more systematically reveal how negative *and* positive work-nonwork experiences relate to pivotal career outcomes (e.g., career insecurity; Spurk et al., 2022), as well as their underlying mechanisms.

Our findings also shed light on the unexpectedly positive effects of work-nonwork interference on career success outcomes through increased career engagement. This finding is an important contribution to the literature and COR theory (Halbesleben et al., 2014) by implying that adverse circumstances can induce individuals to engage in activities to accumulate more resources and combat resource loss. At the same time, however, work-to-nonwork interference also negatively affected career success through increased negative affect. This depicts work-to-nonwork interference as a double-edged sword that can simultaneously — through different processes — have beneficial and detrimental consequences for career success. This deserves further research attention. For example, it would be important to have a better understanding of the personal and contextual boundary conditions of the positive and negative effects of work-to-nonwork interference on career

outcomes to provide insights into how the positive/negative effects of the work-to-nonwork interference on career success can be fostered/mitigated.

In addition, our study highlights that the work-nonwork interface is relevant to career success at an early career stage when many employees do not yet have children. Future work-nonwork theory building may expand on our findings and more systematically incorporate theoretical insights from career theories (e.g., Savickas, 2002; Super, 1996) with theoretical insights from work-nonwork theories (e.g., Brummelhuis & Bakker, 2012) to provide a more nuanced picture of the implications that work-nonwork experiences have for successful career development across the lifespan, for example, changing demands and resources in the work and nonwork domains, as well as indicators of what constitutes a successful career change across career and life stages (e.g., empty nest; Allen & Finkelstein, 2014), and, accordingly, also the relation between work-nonwork experiences and career success.

Secondly, our study contributes to the literature and theory on predictors of objective and subjective career success. Specifically, by showing that negative affective states are particularly relevant for subjective career success, whereas career behaviors are similarly relevant for objective and subjective career success, we contribute to a refined understanding of the differential predictors of objective versus subjective career success (Spurk et al., 2019). Future research and theoretical models about the predictors of objective and subjective career success may consider the fact that the visibility of the different factors deemed relevant to career success plays a role in whether they relate to subjective *and* objective career success. For example, employee-related characteristics, e.g., affect, motivation, and personality, that are less observable by key others at work, e.g., supervisors, may less easily or less directly translate into objective career success outcomes, e.g., bonus pay, promotions, and challenging assignments because such outcomes often depend on the supervisor's perceptions of the employee.

In addition, our findings shed light on the relevance of affective experiences for objective — and especially subjective — career success. Previous career development theories have mostly focused on the relevance of cognitions and behaviors (e.g., goal setting and career exploration behaviors; see, for example, Steiner et al., 2021) for career development. Based on our findings, future theory building should more systematically integrate the role of affective processes for career development and thereby paint a more nuanced and realistic picture of the manifold factors that determine successful careers (Parry & Urwin, 2011).

From a practical perspective, this research has the following implications. For career counselors, our findings suggest that they may actively integrate the experiences at the work-nonwork interface of their clients in their counseling sessions. For example, they could help clients to develop and engage in proactive career behaviors to recover from the resource loss and resulting negative career consequences associated with work-to-nonwork interference. They could also help clients to develop adaptive coping strategies to deal with the negative affect caused by work-to-nonwork interference and thereby minimize its negative consequences for career development.

For political stakeholders and organizations, our findings indicate that family-friendly policies, for example, a flexible work schedule and flexible work location, are not only relevant for reducing stress among employees but also in supporting them in their career development (Lapierre et al., 2018). In addition, our findings highlight that work-to-nonwork interference and enrichment are not only pivotal experiences for employees with children but also key determinants of successful careers for employees at an early career stage who do not have children. This indicates that organizations should be careful not to tailor their work-nonwork policies too narrowly to employees with children. Rather, they should make work-nonwork policies as inclusive as possible, available for all employees, and independent of their family status and work- and family-related preferences (e.g., Kossek, 2016). Such an

approach may also help to counteract some negative consequences that work-family policies can otherwise have (e.g., resentment; Perrigino et al., 2018), and increase the acceptance of work-family policies among employees across career and life stages (Lapierre et al., 2018; Lee et al., 2017).

Limitations and Future Research

In addition to the contributions of this study, we must acknowledge certain limitations. First, there are methodological issues to address. Our final sample included only a few employees with children. Although we intentionally focused more broadly on nonwork beyond the family domain, future research could investigate whether the strength of the behavioral and affective mechanisms between work-to-nonwork experiences and career success differs for employees with and without children. Additionally, we specifically tested a young sample because the work-nonwork interface is highly important for this age group (Parry & Urwin, 2011). However, we cannot claim that the results can necessarily be generalized to older employees at later career stages, and future research should investigate how work-nonwork experiences affect career outcomes across life stages.

Second, we provide evidence for career engagement, as a behavioral and negative affect at work, as an affective mechanism linking work-to-nonwork experiences and career success. Nevertheless, more research on other behavioral and affective mechanisms is needed. For example, work performance or job crafting, i.e., increasing job resources, may act as an alternative behavioral mechanism, and affective organizational commitment might act as an alternative affective mechanism. In addition, the mechanisms between work-to-nonwork experiences and career success may depend on various moderating personal and environmental conditions. For example, proactivity, the strength of work identity, and experiencing a calling may moderate the effect of work-to-nonwork experiences and career engagement (Britt, 2010; Hirschi, 2012; Thomas et al., 2010). Also, environmental conditions, i.e., organizational support, may influence the effects of work-to-nonwork

experiences on career success. Thus, future research should investigate alternative (behavioral and affective) mechanisms linking work-nonwork experiences to career success, as well as potential boundary conditions that could strengthen/mitigate their effects.

Third, although our time-lagged study design ensured the temporal precedence of our variables and we have controlled for the baseline levels in the mediators and outcome variables, we cannot rule out the possibility of reversed causality. We addressed this issue by conducting a post hoc test with a reversed model, which did not provide significant indirect results (see Footnote 1). Thus, we have confidence in the direction of effects in our proposed model. However, future research could adopt a more rigorous longitudinal design that involves measurement at multiple time points to examine potential reciprocal effects over longer periods.

Finally, previous research in line with the source attribution perspective confirms that work-to-nonwork experiences are particularly strongly related to work outcomes (e.g., Amstad et al., 2011), nonwork-to-work experiences can also affect work outcomes (see for example, Geurts & Demerouti, 2003; Geurts et al., 2005). Thus, it is too early to conclude that work-to-nonwork experiences are the more relevant determinants for career success than nonwork-to-work experiences. Thus, future research could integrate work-nonwork experiences in both directions and further evaluate which spillover is more relevant for career success and through which mechanisms it occurs.

Conclusions

In conclusion, in offering a time-lagged study, including three measurement points over one year, our paper contributes to work-nonwork and career success research by providing evidence for behavioral and affective mechanisms linking work-to-nonwork experiences to various forms of career success. Although both the behavioral and affective mechanisms were relevant, they linked work-to-nonwork experiences to different aspects of career success (objective versus subjective). Specifically, our results suggest that positive and

negative work-to-nonwork experiences can translate into objective career success through behavioral engagement and that negative work-to-nonwork experiences can translate into less objective and subjective career success through negative affective states. Our study thereby provides new insights for future research and theory on how the work-nonwork interface relates to career success.

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Footnotes

¹ To rule out the possibility of reversed effects, we conducted an additional analysis, where we regressed salary and career satisfaction at T1 on our mediators, i.e., career engagement (salary: $\beta = .02, p = .561$; career satisfaction: $\beta = -.00, p = .956$) and positive affect (salary: $\beta = -.04, p = .349$; career satisfaction: $\beta = .10, p = .082$) and negative affective states (salary: $\beta = .01, p = .778$; career satisfaction: $\beta = -.13, p = .002$) at T2. Further, we regressed the mediators at T2 on work-to-nonwork enrichment (career engagement: $\beta = .14, p = .024$; positive affect: $\beta = .30, p = .000$; negative affect: $\beta = .01, p = .846$) and interference (career engagement: $\beta = -.00, p = .976$; positive affect: $\beta = -.04, p = .481$; negative affect: $\beta = .05, p = .356$) at T3. No significant mechanisms (indirect effects) were observed.

Table 1*Means, Standard Deviations, Cronbach's Alpha, and Correlations of Study Variables*

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12
1 W-NW enrichment T1	2.49	.88	.84											
2 W-NW interference T1	2.84	.89	-.03	.90										
3 Career engagement T1	2.86	.95	.45***	.06	.93									
4 Positive affect at work T1	3.53	1.37	.56***	-.15***	.39***	.93								
5 Negative affect at work T1	2.54	1.43	-.21***	.36***	-.03	-.31***	.94							
6 Salary T1	0.69	.22	.00	-.05	.10**	.05	-.08*							
7 Career satisfaction T1	3.25	.86	.44***	-.15***	.31***	.49***	-.34***	.27***	.91					
8 Career engagement T2	2.77	.92	.35***	.12*	.60***	.26***	.05	.08	.19***	.93				
9 Positive affect at work T2	3.48	1.3	.21***	-.05	.36***	.50***	-.15**	.00	.31***	.41***	.93			
10 Negative affect at work T2	2.46	1.38	-.14**	.32***	-.07	-.21***	.50***	-.05	-.28***	-.06	-.32***	.94		
11 Salary T3	0.71	.23	.12*	.00	.19***	.11*	-.05	.68***	.33***	.21***	.11*	-.15**		
12 Career satisfaction T3	3.23	.84	.23***	-.13**	.25***	.30***	-.28***	.28***	.56***	.21***	.30***	-.37***	.38***	.92

Notes. $N = 812$, W-NW: work-to-nonwork; Cronbach's alpha is in bold on the diagonal.

*** $p < .001$, ** $p < .01$, * $p < .05$.

Table 2*Detailed Model Comparison Results*

	AIC	BIC	RMSEA	CFI	TLI	SRMR	χ^2	df	p	correction				
										factor	$\Delta\chi^2$	Δdf	p	
Model 0	87242.730	88163.832	.033 [.031; .035]	.952	.949	.061	2499.408	1341	.000	1.12				
Model 1	87246.147	88171.949	.033 [.031; .035]	.952	.949	.061	2500.291	1340	.000	1.12	1.26	1	.262	
Model 2	87245.097	88170.899	.033 [.031; .035]	.952	.949	.061	2499.674	1340	.000	1.12	.00	1	.992	
Model 3	87257.317	88183.118	.033 [.031; .035]	.952	.948	.062	2511.189	1340	.000	1.12	.64	1	.423	

Notes. $N = 812$, Model 0: unconstrained model; Model 1: paths from career engagement at T2 to salary at T3 and career satisfaction at T3 are set equal; Model 2: paths from positive affect at work at T2 to salary at T3 and career satisfaction at T3 are set equal; Model 3: paths from negative affect at work at T2 to salary at T3 and career satisfaction at T3 are set equal; Model 1, 2, and 3 are compared to Model 0.

Table 3

Comparison of Indirect Effects Linking Work-Nonwork Enrichment and Interference with Objective and Subjective Career Success

Indirect effect A	Indirect effect B	Δb	95% bias-corrected CI
Behavioral mechanism			
W-NW enrichment T1 → career engagement T2 ^a → salary T3 ^a	W-NW enrichment T1 → career engagement T2 ^a → career satisfaction T3 ^a	-.01	[-.036, .001]
W-NW interference T1 → career engagement T2 ^a → salary T3 ^a	W-NW interference T1 → career engagement T2 ^a → career satisfaction T3 ^a	-.01	[-.036, .001]
Affective mechanism			
W-NW enrichment T1 → positive affect T2 ^a → salary T3 ^a	W-NW enrichment T1 → positive affect T2 ^a → career satisfaction T3 ^a	.02	[-.010, .061]
W-NW interference T1 → negative affect T2 ^a → salary T3 ^a	W-NW interference T1 → negative affect T2 ^a → career satisfaction T3 ^a	-.04	[-.075, -.014]

Notes. $N = 812$, career engagement, positive affect, negative affect, salary, and career satisfaction were controlled for their T1 levels in all analyses. W-NW: work-to-nonwork; significant differences are bold

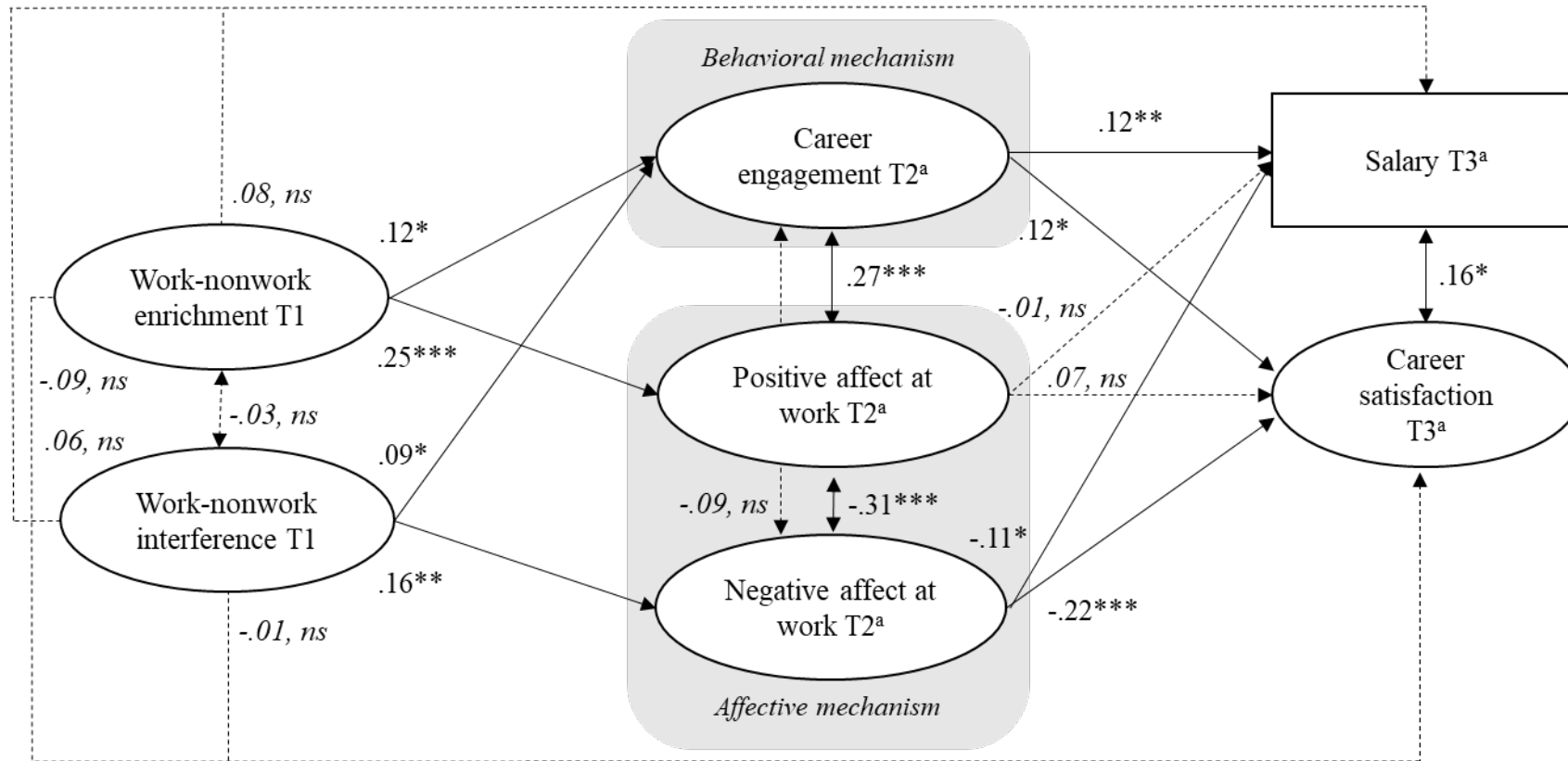


Figure 1. ^aT2 and T3 variables were controlled for their respective T1 levels (not shown in the figure). Mediation model with career engagement and positive and negative affect at work mediating the relation between the work-to-nonwork interface and career success. $N = 812$. Standardized effects are reported. The time lag between T1, T2, and T3 was six months each. $* p \leq .05$, $** p \leq .01$, $*** p \leq .001$.

Appendix A

Table A1

Detailed Results of Measurement Invariance Tests

	AIC	BIC	χ^2	df	p	correction		CFI	TLI	SRMR
						factor	RMSEA			
Career satisfaction										
Configural	12855.471	13024.609	39.685	29	.089	1.4089	.021 [000;.036]	.996	.994	.016
Metric	12851.922	13002.266	44.174	33	.093	1.3665	.020 [000;.035]	.996	.995	.025
Scalar	12848.474	12975.327	50.719	38	.081	1.3194	.020 [000;.034]	.996	.995	.025
Positive affect at work										
Configural	14884.398	15020.612	11.934	15	.684	1.4236	.000 [000;.026]	1.000	1.002	.010
Metric	14879.076	15001.199	13.093	18	.786	1.3494	.000 [000;.021]	1.000	1.003	.011
Scalar	14878.777	14982.112	19.755	22	.598	1.2842	.000 [000;.026]	1.000	1.001	.012
Negative affect at work										
Configural	14959.323	15095.537	26.191	15	.036	1.3484	.030 [008;.049]	.996	.992	.011
Metric	14958.509	15080.632	31.074	18	.028	1.3034	.030 [010;.047]	.995	.992	.018
Scalar	14960.593	15063.928	40.479	22	.010	1.2497	.032 [016;.048]	.993	.991	.022
Career engagement										
Configural	29991.784	30287.775	284.614	126	.000	1.2717	.039 [.033;.045]	0.975	0.970	0.039
Metric	29988.342	30246.747	299.66	134	.000	1.4970	.039 [.033;.045]	0.974	0.970	0.041
Scalar	29982.982	30199.102	313.536	143	.000	1.2347	.038 [.033;.044]	0.973	0.971	0.043

Notes. $N = 812$. Configural, metric, and/or scalar invariance was tested according to the practice recommended by Vandenberg and Lance (2000). Configural invariance (weak factorial invariance) is tested by assessing if loadings remain invariant across time. Metric invariance (strong factorial invariance) tests if factor loadings for the same items are invariant across time points. Scalar invariance tests if intercepts of the same items' regressions on the latent variable(s) are invariant across time points. Measurement invariance is achieved when the specific invariance model provides good model fit indices according to Hu and Bentler (1998) with root mean square error of approximation (RMSEA) $< .06$, comparative fit index (CFI) $> .95$, the Tucker-Lewis index (TLI) $> .95$, and standardized root mean square residual (SRMR) $< .08$.