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Spillover of Interpersonal Conflicts from Work into Non-Work: A Daily Diary Study

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Abstract

This study among a heterogeneous sample of employees expands the Job-Demands (JD-R) theory by examining how interpersonal conflicts at work -task and relationship conflict- spillover into the non-work domain on a daily basis. We hypothesized that daily personal resources can buffer the daily negative spillover of interpersonal conflicts from work into the non-work domain. A total of 113 employees ($N = 565$ occasions) filled in a daily diary questionnaire in the evening before bedtime over five consecutive working days. Results of multi-level analysis showed that the presence of daily personal resources is essential in order to buffer the spillover of interpersonal conflict at work to the non-work domain. Specifically, on days that employees were not very optimistic or resilient, interpersonal conflicts resulted in higher strain-based work-life conflict experiences. These findings contribute to the JD-R theory and show how the unfavorable effects of daily interpersonal conflicts in the work domain may be avoided in the non-work domain through enhancing personal resources. We discuss the implications for theory and practice.

Keywords: Diary study; Interpersonal Conflict; Personal resources; Spillover; Work- Non-Work conflict

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As employees strive to achieve their performance goals, they often face challenges they must overcome in a daily collaboration with others. Interpersonal conflicts may arise due to differences and opposition between employees regarding interests, beliefs, or values they find important (De Dreu & Beersma, 2005). These perceived differences and opposition may evolve around task-related issues (task conflict) or relationship issues (relationship conflict) (Amason, 1996; Jehn, 1995). Because of their different nature, literature on interpersonal conflict at work emphasizes the need to analyze both task and relationship conflict as different types of interpersonal conflicts (Jehn, 1995). Evidence suggests that all interpersonal conflicts cost effort and generate strain and thus may cause job stress (De Dreu & Weingart, 2003; De Wit, Geer & Jehn, 2012; Dijkstra, Van Dierendonck, & Evers, 2005).

According with the JD-R theory (Bakker & Demerouti, 2007, 2014; Demerouti & Bakker, 2011), interpersonal conflict is a stressful job demand because it requires psychological effort and is associated with physiological and/or psychological costs (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). For instance, past research has shown that employees involved in interpersonal conflicts experience higher negative affect (Ilies, Johnson, Judge, & Keeney, 2011), rumination, alcohol intake and sleep problems (Dana & Griffin, 1999; Pennebaker, 1982). Although research has demonstrated the importance of interpersonal conflicts for a range of organizational and well-being outcomes, the implications of interpersonal conflicts for the non-work domain remain understudied (for an exception, Dierdorff & Ellington 2008, Galvin & Schieman, 2010; Ito & Brotheridge, 2012). Since interpersonal conflicts in organizations seem inevitable, it is important to investigate to what extent daily interpersonal conflicts at work influence employees' personal lives promoting work-non-work conflict (WNWC).

Moreover, it is particularly useful to find out how the negative spillover of daily interpersonal conflicts from work into personal life can be prevented or minimized. One of the central propositions of the JD-R theory is that job and personal resources are able to buffer the impact of job demands on strain. The vast majority of previous research has focused on the buffering effect of *job* resources (i.e., autonomy, feedback, social support; Bakker, Demerouti, & Euwema 2005; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007) on the impact of job demands (i.e., work pressure, emotional demands) on burnout. In a more recent study among medical residents and their partners, Bakker, Ten Brummelhuis, Prins, and Van der Heijden (2011) found that job resources (i.e. participation in decision making, supervisory coaching) can also buffer the impact of job demands (i.e., work overload, emotional and cognitive demands) on partner-ratings of the employee's work-family conflict.

Bakker and Demerouti (2008, 2014) have argued that personal resources may buffer the impact of job demands on well-being. For instance, individuals who are resilient and optimistic are expected to deal best with the varying demands of working life because they cope effectively with adversity, and are able to recover from experiencing negative emotions. Indeed, some studies have supported the moderating role of personal resources in the relationship between job demands and well-being. Van Erp, Rispens, Gevers, and Demerouti (2014) found that resilience buffered the effect of bystander conflict (i.e. when employees are hindered in their work by individuals not involved in the primary process) on positive affect. Similarly, Mäkikangas and Kinnunen (2003) found that optimism buffered the relationship between job demands (i.e., time pressure, job insecurity, poor organizational climate) and mental distress. However, Xanthopoulou et al. (2007) failed to find evidence of a moderating role of personal resources.

As it might not always be possible to increase job resources, we focus on the buffering role of personal rather than job resources. Personal resources are state-like (Youssef &

Luthans, 2007) and as such they can be learnt and developed, which has important practical implications (Luthans, Vogelgesang, & Lester, 2006). Building on the JD-R theory, we conducted a quantitative daily diary study to investigate whether daily interpersonal conflict, as a social job demand, negatively impacts on individuals' daily WNWC experiences and whether daily personal resources (optimism and resilience) are able to buffer the this relationship. We aim to make two main contributions. First, this study integrates theory on interpersonal conflicts and the work- non-work interface in JD-R theory (Bakker & Demerouti, 2007; 2014; Demerouti & Bakker, 2011). Second, this is one of the first studies to examine the buffering role of daily personal resources in the JD-R model.

Theoretical Background

In an organizational setting, a work-related conflict is a serious disagreement or argument between organizational members. Interpersonal conflicts often refer to an incompatibility between two or more opinions, principles, or interests, which results in tension between individuals. As introduced before, since organizational members contribute to organizational performance through task inputs and social inputs (e.g., Forsyth, 1983), interpersonal conflicts either refer to task issues, or to the relationship (e.g., Amason & Schweiger, 1997; De Dreu & Weingart, 2003). Task conflict involves differences in viewpoints, ideas, and opinions (Jehn, 1995), and may concern conflicts about the distribution of resources, different opinions about the procedures that should be used, and disagreements about the interpretation of facts (De Dreu & Van de Vliert, 1997). When task conflicts arise, "group members become dissatisfied when they interpret challenges of their viewpoints by other group members as a negative assessment of their own abilities and competencies" (De Wit et al., 2012, p.362). For instance, criticism might be interpreted as a personal disapproval or a strategy to enhance one's own position at the expense of someone else's (Amason, 1996). In contrast, relationship conflict is a perception of interpersonal incompatibility and often

includes tension, annoyance, and animosity among group members (Jehn, 1995). Examples of relationship conflict are conflicts about personal taste, values, and interpersonal style (De Dreu & Van de Vliert, 1997). When relationship conflicts arise, the different opinions are taken personally and ego is threatened, which may promote anger, disgust, and fear (Frone, 2000). Thus, task and relationship conflict have negative effects on strain and well-being derived by their ego threatening potential and implications for the social belonging (De Dreu & van Knippenberg, 2005).

Several studies have shown the negative impact on health and well-being of both task and relationship conflicts. For example, Ilies et al., (2011) in a daily diary study with employees from several organizations found that interpersonal conflict has important negative affective implications for individuals, although these authors did not differentiate task and relationship conflict. In their study in a hospital, Friedman, Tidd, Currall, & Tsai (2000) found that both types of interpersonal conflict had a positive relationship with work-related stress. Similarly, in a study among employees working for a company specializing in the development of food processing systems, De Dreu, Van Dierendonck, and De Best-Waldhober (2003; Study 3), found that both task and relationship conflicts were positively related to tension and fatigue. Similar results have been found by Guerra, Martinez, Munduate and Medina (2005) in private organizations where task and relationship conflicts decreased workers' job satisfaction and affective well-being.

The impact of interpersonal conflicts at work on the non-work domain

Because work-related interpersonal conflicts can have an important impact on health, well-being, and performance, it is conceivable that these effects may also spillover into personal life on a daily basis. Employees who are confronted with work-related interpersonal conflicts may have a negative interpretation of the day's work events, which further generates unpleasant thoughts and evaluations at home (Ilies et al., 2011; Judge & Ilies, 2004).

Moreover, employees may ruminate about work-related interpersonal conflict when they are at home, impairing recovery processes in the evening (Sonnentag, Kuttel, & Fritz, 2010). In addition, the stress experienced at work may turn into irritation and negative behaviors when interacting with the intimate partner at home (Bakker, Demerouti, & Dollard, 2008) affecting family member's well-being (Repetti, Wang, & Saxbe, 2009). More specifically, it can be argued that interpersonal conflicts at work have their impact on personal life through a spillover process known as work-family conflict – “a form of inter-role conflict in which the role pressures from the work and family domains are mutually incompatible in some respect” (Greenhaus & Beutell, 1985, p.77). In this study, we acknowledge the potential negative spillover from work to any aspect of an individual personal life or non-work domain; hence we focus on work-non-work conflict (WNWC) rather than work-family conflict.

WNWC can be considered a stress reaction or strain motivated by job demands (Bakker & Geurts, 2004). Several job demands have been related to WNWC because these require individuals to invest effort and are therefore associated with job strain (Demerouti et al., 2001). Job demands found to be predictors of WNWC are work pressure (e.g. Grzywacz & Marks, 2000), work-role overload (Butler, Grzywacz, Bass, & Linney, 2005; Demerouti, Bakker, & Bulters, 2004), and emotional job demands, such as interactions with demanding clients (Bakker & Geurts, 2004). More specifically, Hargis, Kotrba, Zhadanova and Baltes (2011) have identified different antecedents of time and strain-based work-family conflict. The most important predictors of time-based conflict were work pressure, lack of autonomy and role ambiguity, whereas negative affectivity, which is directly related to interpersonal conflicts at work, accounted for 43% of predicted variance of strain-based conflict. Given the negative affectivity involved in interpersonal conflicts at work (Ilies et al., 2011), strain-based conflict seems to be the dimension of WNWC mostly relevant. Therefore, we focus on strain-

based WNWC, which occurs when the strain experienced at work intrudes into and interferes with participation in personal life (Greenhaus & Beutell, 1985).

Results of earlier research on the link between interpersonal conflicts at work and WNWC are rather scarce and mixed. Galvin and Schieman (2010) found that work environments with high work-related interpersonal conflicts – i.e. negative interpersonal experiences in the work role such as resistance, undermining, and antagonistic negotiation between coworkers, supervisors, and clients – were associated with higher levels of work-family conflict. In a similar vein, Ito and Brotheridge (2012) found a positive relationship between task and relationship conflict on the one hand and work-family conflict on the other. However, Dierdorff and Ellington (2008) found no relationship between interpersonal conflict at work and work-family conflict. In this latter study, interpersonal conflict was operationalized as the frequency of dealing with unpleasant, angry, or discourteous individuals or handling physical aggression. The mixed findings reported in the literature could be due to the specific samples studied or suboptimal research designs, and suggest that there may be moderators of the impact of interpersonal conflict on WNWC. Another limitation in these studies is that they consider interpersonal conflict at work in broad terms, whereas the interpersonal conflict literature highlights the importance of differentiating between task and relationship conflict (Jehn, 1995, 1997; Jehn & Chatman, 2000). In our study, we use a within-subject design to examine how daily deviations from a baseline in frequency of interpersonal conflicts at work are related to daily fluctuations in WNWC experiences. In addition, we conceptualize and measure interpersonal conflict as discrete encounters. On the basis of this overview, our first hypothesis is:

Hypothesis 1: Daily task conflict (1a) and daily relationship conflict (1b) are positively related to daily strain-based WNWC.

The Role of Personal Resources

As previously said, the JD-R theory (Bakker & Demerouti, 2007, 2014; Demerouti & Bakker, 2011) proposes that work environments include demanding characteristics that reduce energy (job demands) as well as motivational characteristics that foster work engagement (job resources). In addition, the JD-R theory proposes that when it comes to work-related well-being and job performance, employees play an important role themselves. Specifically, all individuals have some personal resources that may help to cope with high job demands.

Personal resources refer to individuals' sense of their ability to control and influence their environment successfully (Hobfoll, Johnson, Ennis, & Jackson, 2003). Personal resources are unique to promote general resistance to stress (Hobfoll, 1989) and consequently to reduce WNBC. In this study, we examine two specific resources, resilience and optimism, because they encompass the core qualities of personal resources (Luthans & Youssef, 2007) that are relevant for dealing with daily stressors. Both are components of the *psychological capital* (PsyCap), defined as an individual's positive psychological state of development "that results in obtaining experiential rewards from the present moment while also increasing the likelihood of future benefit" (Luthans, Avolio, Avey, & Norman, 2006b, p.542). PsyCap components, such as resilience and optimism, are state-like as opposed to trait-like because because they are relatively malleable and open to change and development (Luthans et al., 2006b; Luthan & Youssef, 2007). There is wide empirical evidence suggesting that both resilience and optimism fluctuate on a daily basis (Bakker & Sanz-Vergel, 2013; Xanthopoulou et al., 2008, Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009; 2012). Resilience is the "the developable capacity to rebound or the developable capacity to rebound or bounce back from adversity, conflict, and failure or even positive events, progress, and increased responsibility" (Luthans, 2002, p. 702). It has been related positively to performance (Luthans, Avolio, Walumbwa, & Li, 2005), health and life satisfaction (McLarnon & Rothstein, 2013) and job satisfaction (Larson & Luthans, 2006). Optimism

refers to the tendency to believe that one will generally experience good outcomes in life (Scheier & Carver, 1985), which increases the propensity to take action and deal with threats (Aspinwall & Taylor, 1997). Previous studies have shown that optimism has positive effects on physical and emotional well-being (Scheier & Carver, 1992) and performance (Luthans et al., 2005).

Personal resources such as optimism and resilience are related to a more positive appraisal of stressful situations and the use of more active and approach-related coping, such as positive reappraisal and active acceptance (Taylor & Stanton, 2007). Likewise, evidence from interpersonal conflict literature suggests that more proactive and problem-solving approaches to solving work-related interpersonal conflicts have more positive consequences for employee health and well-being compared to more passive and obliging styles (De Dreu et al., 2003). Moreover, positive emotions embedded in optimism and resilience could increase the ability to cope with work-related interpersonal conflict by sustaining coping efforts and restoring lost or depleted resources (Scheier & Carver, 1985). More specifically, optimism may keep employees focused on positive outcomes and make them attribute negative events to external, temporary, situational-specific causes (Tugade & Fredrickson, 2004; Youssef & Luthans, 2007), thus helping them to deal with interpersonal conflicts less personally and recover from conflict more quickly. On the other hand, resilience provides individuals with the ability to “take both proactive and reactive measures in the face of adversity”, with a focus on recovery, adaptation and learning for the future (Youssef & Luthans, 2007, p. 779). Thus, resilient employees are more likely to perceive interpersonal conflicts at work as learning opportunities, adapt to conflicts faster, and bounce back from negative events.

In the present diary study, we argue that resilience and optimism can both buffer the impact of task and relationship conflicts on WNWC. Experiences of discord, divergence of interest, points of view or personal values are emotional (Frone, 2000) and personal cognitive

resources are required to cope with the situation (Dijkstra et al., 2005). On the days that employees are able to overcome and bounce back and beyond from interpersonal conflict at work to attain success, they feel self-confident enough to deal with their work environment. Thus, when conflicts of interest or values arise on those days, they will deal with them more effectively. This will prevent the job-related strain from spilling over into personal life. Similarly, on days when employees feel optimistic, they will expect good things to happen to them, avoiding negative interpretation of the day's work event, which could further generate unpleasant thoughts and evaluations at home. Thus, even when confronted with conflicts about limited resources and interpersonal tension, they will see opportunities for finding creative solutions to solve the problems. Because optimistic employees deal effectively with conflicts, the tension stemming from them will not interfere with personal life. In sum, we predict the following:

Hypothesis 2: Daily resilience will buffer the positive relationship between daily task conflict (2a) as well as daily relationship conflict (2b) and daily strain-based WNWC. On the days that employees are more resilient, daily task conflict (2a) as well as daily relationship conflict (2b) will have lower negative impact on WNWC.

Hypothesis 3: Daily optimism will buffer the positive relationship between daily task conflict (3a) as well as daily relationship conflict (3b) and daily strain-based WNWC. On the days that employees are more optimistic, daily task conflict (3a) as well as daily relationship conflict (3b) will have lower negative impact on WNWC.

Method

Procedure and Participants

Participants were employees from various organizations in Andalucía (Spain). They were recruited by 30 Work and Organizational Psychology Master degree students. Researchers and students agreed on recruiting five participants per student. Before the start of

the data collection, each student received training on the execution of diary research, and on the topic of work-life balance. Together with a brief report, the students received study points for the data collection in a seminar about work-life balance. To motivate students, they were grouped in teams of five. Each team had to make a report of their data (reliability, descriptive statistics and correlational analyses to check some proposed hypotheses) as part of a work-life balance seminar. Demerouti and Rispens (2014) suggest that the student-recruited sampling method has several advantages (heterogeneity of the sample, cost reduction, elaborate research designs, and student learning) if it is conducted carefully. Students had to approach employees (instead of self-employed) from various sectors and to stay in close contact with them to increase their commitment to adhere to the instructions. In the present study, students were required to collect data from working men and women from different professional background, with and without family responsibilities.

Data collectors explained the objectives of the research to those employees who agreed to participate. Each employee received a package including: (a) a letter outlining the purpose of the study and assuring the anonymity and confidentiality of all responses, (b) instructions about how to complete the survey, (c) a general questionnaire with background information and a total scales of the diary measures, and (d) a diary booklet. Participants had to fill in one general questionnaire, and they then had to fill in one daily questionnaire each day (in the evening before bedtime) over five consecutive working days. To ensure data quality and participant compliance, students reminded participants once a day to fill in the questionnaire at the end of the working day. Of the 150 survey packages distributed, 115 were returned but two of them had not been filled in correctly. Some students did not return all their packages. A mean of 3.7 packages per student were returned. Thus, we were able to use 113 diary questionnaires (83.7%) for our study. Participants came from a broad range of professional backgrounds, including education (23%), catering (11.1%), health and welfare

(10.2%), industry (9.3%), trade (8.3%), business services (8.3%), culture and leisure (5.6%), construction (3.7%), communication (3.7%), government (3.7%), financial institutions (2.8%), transport (1.9%), and others (8.3%). 45% held a managerial position and 9.7% did not answer the job level question. The mean age of the participants was 40 years ($SD= 10.99$). In total, 60% of the sample was female. 34% were living together or married, with no children at home, 31% were living together or married, with children at home, 31.9% were single with no children at home, 0.9% were single with children at home and 1.8% did not specify any of these options. Additionally, 51% of the sample had a university degree, 32% had completed secondary studies, 10% had completed elementary studies, and 6% had not completed any formal education. On average, participants had 13.4 years' ($SD= 10.65$) work experience and they worked a mean of 40.08 ($SD= 32.57$) hours per week. Compared to the Spanish working population, our sample was somewhat more higher educated, and more often employed in the service sector.

Daily questionnaire measures

The daily measures were implemented once a day (in the evening before bedtime) over five consecutive working days. Due to the space constraints that are inherent to diary studies (Ohly, Sonnentag, Niessen & Zapf, 2010), we selected a limited number of items from the original scales. Task and relationship conflicts were measured with a single item each. Sacket and Larson (1990) suggested that single-item measures may be preferred for reasons of efficiency and user-friendliness if the construct under study is sufficiently unidimensional, as previous research by Jehn (1995) has shown regarding task and relationship conflict. Diary survey items were selected from validated and reliable scales on the basis of their face validity and on the basis of factor analytic findings in previous research. Responses for resilience, optimism and WNWC scales were given on a 5-point scale ranging from (1) *totally disagree* to (5) *totally agree*. Responses for task and relationship conflict were given on a 5-point scale

ranging from (1) *never* to (5) *always*. Reliability alpha coefficients were calculated for each day and the overall reliability is the average across the five days. The validity of the diary scales was justified by calculating the correlation of the diary scales with the general scales used in the present study. In the general scales, task and relationship conflict were measured with three items respectively, resilience was measured with five items, optimism was measured with 6 items and strain-based work-life conflict was measured with 3 items.

Daily task conflict. To measure daily task conflict, we utilized the adapted item “How much conflict of ideas was there in your work group today?” This item was deduced from the 3-item task conflict scale developed by Jehn (1995). Although this item doesn’t refer explicitly to tasks, in previous studies (Jehn & Mannix, 2001), this item had the highest factor loading (.91) on the overall task conflict factor and the correlation of this item with the general scale was .60, $p < .001$.

Daily relationship conflict. It was measured with the adapted item “How much relationship tension was there in your work group today?” This item was also deduced from the 3-item relationship conflict scale developed by Jehn (1995). In previous studies (Jehn & Mannix, 2001) this item had one of the highest factor loadings (.90) on the overall relationship conflict factor and the correlation of this item with the general scale was .57, $p < .001$.

Resilience. Three items were adapted from a short version (Luthans, Yousseff, & Avolio, 2007) of the resilience scale developed by Wagnild and Young (1993). The items were: “Today...” “I got through difficult times because I’ve experienced difficulty before”, “I felt I could handle many things at a time” and “I took stressful things in my stride”. Cronbach’s alpha for the five consecutive days were .61, .43, .48, .79 and .58 respectively ($M = .58$). Although for some days the reliability was rather low, the correlation of the selected items with the general scale in our study was .85, $p < .001$.

Daily optimism. Three items were adapted from the LOT-R (Scheier, Carver, & Bridges, 1994). The items were: “Today...” “I felt very optimistic about my future”, “I felt that more good things would happen to me than bad”, and “I felt that hardly anything went my way”. Cronbach’s alpha for the five consecutive days were .78, .71, .60, .56 and .73 respectively ($M = .67$). Although for some days the reliability was rather low, the correlation of the selected items with the general scale in our study was .91, $p < .001$.

Daily strain-based work non-work conflict. It was measured with two adapted items from the Carlson, Kacmar and Williams (2000) work to family strain conflict subscale. The items were: “Today...” “I felt so emotionally drained when I got home from work that it prevented me from contributing to personal-related activities” and “due to all the pressures at work I have come home too stressed to do the things in my private life I enjoy”. Note that instead of referring to family our items refer to non-work life in general. Cronbach’s alpha for the five consecutive days were .91, .87, .89, .90 and .88 respectively ($M = .98$). The correlation of the selected items with the general scale in our study was .85, $p < .001$.

Strategy of Analysis

Because the daily measures of the same individual are not independent, our data had a hierarchical structure with the daily measures nested within persons. This leads to a two-level model with the series of repeated measures at the day-level (within-person; $N = 565$ study occasions), and the individual persons at the person-level (between-person; $N = 113$ participants). Such data are treated as multilevel and can be analyzed with hierarchical linear modelling (Rashbash, Browne, Healy, Cameron, & Charlton, 2000). Hierarchical linear modelling is the most appropriate method for dealing with this kind of data as it takes the dependence of the day-level measurements within each person into account (Snijders & Bosker, 2012). According to Maas and Hox (2004), for robust estimations of fixed effects in multilevel modelling a sample of at least 30 at the highest level of analysis is needed. Thus,

the sample size of the present study ($N = 113$) provides sufficient statistical power for the required analyses. In this study, all variables were measured at the day-level (Level 1). In order to gain unbiased estimates of the hypothesized relationships, we used centered scores (Hofmann & Gavin, 1998). Consistent with Ohly, Sonnentag, Niessen, and Zapf (2010) recommendations, all day-level predictor variables were centered to the person mean. Within multilevel analysis, it is possible to test and compare several models starting with a null model that includes only the intercept and does not specify any predictor variable. In the following steps, several predictor variables can be added consecutively, and the improvement of one model above a previous one can be examined using a likelihood ratio statistic.

Results

Preliminary Analyses

Before testing our hypotheses, we examined the between-person and within-person variance components of all variables used in the analyses. The intraclass correlation coefficient (ICC) for daily task and relationship conflict were $\rho = .32$ and $\rho = .27$ meaning that 32% and 27% of the answers in questions about daily conflict could be explained by between-person variations in the five days measurement occasions, whereas 68% and 73% of the variance respectively could be explained by within-person or daily variation. Because the ICC for daily resilience and optimism was $\rho = .39$ and $\rho = .53$ respectively, the proportions of total variance attributed to between-person were 39% and 53%, whereas 61% and 47% respectively related to within-person variance. For daily strain-based WNWC the ICC was $\rho = .53$, meaning that 53% of the variance in the answers was between-person and 47% within-person. These findings endorse the multilevel structure of our data as sufficient variance could be explained by the between- and the within-person levels.

Means, standard deviations, and correlations among all the study variables are displayed in Table 1. In order to calculate the correlations we used the aggregated scores per individual over the five days.

Test of Hypotheses

To test our hypotheses, we started with a null model that included the intercept as the only predictor. Prior to hypothesis testing we found that sociodemographic characteristics (gender, age, education, working hours per week, work experience, number of children) were unrelated to WNWC. Therefore, they were excluded from all further analyses. In Model 1, we entered the main effect variables, namely (a) daily task conflict and daily resilience/optimism or (b) daily relationship conflict and daily resilience/optimism. We tested Hypothesis 1 with this model. In Model 2, we entered the respective interaction term. We tested Hypotheses 2 and 3 with this model. We examined fixed effects and tested the improvement of each model over the previous one by computing the differences of the respective log likelihood statistic - $2 \times \log$ and submitted this difference to a χ^2 -test.

As can be seen in Tables 2 and 3, daily task conflict and daily relationship conflict were positively related to strain-based WNWC. These findings provide support for Hypothesis 1a and 1b. Note that the tables also reveal that daily resilience and optimism were negatively related to strain-based WNWC.

Daily resilience as moderator. To test hypothesis 2a suggesting a buffering effect of daily resilience in the relationship between daily task conflict and strain-based WNWC, we incorporated the daily task conflict x daily resilience interaction term in Model 2. The model fit increased (Difference $-2 \times \log = 3.908$, $p < .05$), and the interaction term was statistically significant. To examine the interaction effect in more detail, we ran simple slope tests using the interactive tool developed by Preacher, Curran and Bauer (2006). In line with Hypothesis 2a, the results showed that on the days that employees experienced low resilience, daily task

conflict showed a positive relationship with daily WNWC ($\gamma = 0.33$, $SE = 0.08$, $z = 3.86$, $p < .001$; see Figure 1). However, on the days that employees experienced high resilience, daily task conflict had no relationship with daily WNWC ($\gamma = 0.07$, $SE = 0.06$, $z = 1.12$, *n.s.*).

To test Hypothesis 2b suggesting a buffering effect of daily resilience in the relationship between daily relationship conflict and strain-based WNWC, we incorporated the daily relationship conflict and daily resilience interaction term in Model 2. Again, the model fit increased (Difference $-2 \cdot \log = 5.206$, $p < .05$), and the interaction term was statistically significant. In line with Hypothesis 2b, the simple slope analysis showed that on the days that employees experienced low resilience, daily relationship conflict showed a positive relation with daily WNWC ($\gamma = 0.33$, $SE = 0.08$, $z = 3.85$, $p < .001$; see Figure 2). However, on the days that employees experienced high resilience, daily relationship conflict was unrelated to daily WNWC ($\gamma = 0.05$, $SE = 0.06$, $z = 0.73$, *n.s.*).

Daily optimism as moderator. To test Hypothesis 3a suggesting that daily optimism will buffer the relationship between daily task conflict and strain-based WNWC, we included the daily task conflict x daily optimism interaction term in Model 3 (see Table 3). The model fit increased (Difference $-2 \cdot \log = 4.727$, $p < .05$), and the interaction term was statistically significant. The simple slope analyses showed that, in line with Hypothesis 3a, on the days that employees scored low on optimism, daily task conflict showed a positive relationship with daily strain-based WNWC ($\gamma = 0.34$, $SE = .09$, $z = 3.70$, $p < .002$). In contrast, daily task conflict had no relationship with daily strain-based WNWC on the days that employees scored high on optimism ($\gamma = 0.03$, $SE = 0.07$, $z = .56$, *n.s.*) (see Figure 3).

Finally, to test Hypothesis 3b suggesting a buffering effect of daily optimism in the link between daily relationship conflict and daily WNWC, the daily task conflict x daily optimism interaction term was included in Model 2. The model fit increased (Difference $-2 \cdot \log = 4.688$, $p < .05$), and the interaction term was statistically significant. In line with

Hypothesis 3b, the simple slope analysis showed that on the days that employees scored low on optimism, daily relationship conflict showed a positive relation with daily strain-based WNWC ($\gamma = 0.28$, $SE = 0.07$, $z = 3.65$, $p < .001$; see Figure 4). However, on the days that employees scored high on optimism, relationship conflict was unrelated to WNWC ($\gamma = 0.04$, $SE = 0.07$, $z = .61$, *n.s.*).

Discussion

The aim of this study among a heterogeneous group of employees was to examine whether individuals experience more strain-based WNWC on the days they are confronted with task and relationship conflicts at work. As conflicts at work may be unavoidable, we investigated whether employees' personal resources (resilience and optimism) may buffer the unfavorable impact of conflicts at work on WNWC. The results show that conflicts at work spillover into personal life, since employees reported more WNWC on the days they encountered more conflicts with their colleagues at work related to the job itself –task conflict– or on a more personal level –relationship conflict. Moreover, results indicate that personal resources do fulfill a buffering role. In the following, we shall expand on the main contributions of the study.

Theoretical Contributions

First, our study extends previous research on the dynamic nature of WNWC and broadens the scope of job-related antecedents that can have a daily impact on how employees feel at home (Butler, Grywack, Bass, & Linney, 2005; Ilies et al., 2011). While most previous studies focused on job demands such as organizational aspects of the job –i.e. overload time pressure –, we have shown that social job demands –episodes of task and relationship conflicts– are also relevant demands that need to be managed to reduce stress spillover from work into personal life (strain-based WNWC) on a daily basis. This theoretical contribution expands the JD-R model acknowledging the relevance of analyzing a wider range of job

demands. Following Jehn and Chatman's (2000) suggestion, we examined the unique effects of task and relationship conflict to avoid masking possible differences in the patterns of task versus relationship conflict. Drawing on the role scarcity hypothesis (Edwards & Rothbard, 2000), dealing with task and relationship conflict at work depletes cognitive (planning, developing tactics, assessing strategies) and time resources (Jehn & Bendersky, 2003) and it can leave individuals with fewer resources to deal with non-work demands. Our study suggests that daily reports on the experience of task and relationship conflicts may be more effective for evaluating the pervasive detrimental effects of such stressors on personal life compared to measuring general levels of interpersonal conflict, because the use of diary methods reduces retrospective bias (Bolger, Davis, & Rafaeli, 2003).

Second, our study adds to a growing body of evidence on the nature and consequences of daily work-related interpersonal conflict. In line with recent studies in different contexts (Ilies et al., 2011; Meier, Spector, Gross, & Semmer, 2013), our findings confirm that employees can experience task and relationship conflicts simultaneously on a daily basis. Although not identical, both types of conflict could be related. The association between and co-occurrence of both types of interpersonal conflict can be explained by the negative emotionality embedded in individuals' reactions to interpersonal conflicts (Yang & Massholder, 2004). Thus, task conflict can be interpreted as threats to goal achievement and arguably be experienced as a personal attack, escalating into relationship conflicts (De Wit et al., 2012; Medina, Munduate, Dorado, Martínez, & Guerra, 2005).

While there is compelling evidence suggesting that task and relationship conflict can create work-related or general strain (De Dreu et al., 2003; Friedman et al., 2000; Ilies, et al., 2011), our study goes one step further into the consequences of daily interpersonal conflict to show that the strain associated with both types of interpersonal conflict during the working day can have a negative impact on employees' in personal life (Greenhaus & Beutell, 1985).

Hence, as strain-based job demands, both task and relationship conflict may operate through processes of negative psychological spillover related to negative emotional arousal, interpersonal withdrawal, energy depletion and stress (Voydanoff, 2007). The strain associated with participation in one domain is carried over into another domain, with strain permeating this other domain. Story and Repetti (2006) showed that a negative interaction at work increased wives' and husbands' marital anger and social withdrawal, and husbands' negative mood later in the evening.

Another contribution of this study to interpersonal conflict literature is that it expands knowledge about the type of moderators that can buffer employees' distress reactions to work-related interpersonal conflict. Specifically, we highlight the importance of resilience and optimism as effective personal resources for coping with daily experiences of work-related interpersonal conflict, thereby reducing the spillover of such experiences into the non-work domain.

The findings about the moderating role of resilience and optimism on the relationship between work-related interpersonal conflict and WNWC also contribute to and expand JD-R theory (Bakker & Demerouti, 2007, 2014; Demerouti & Bakker, 2011). This study is one of the first to confirm the proposed moderating role of personal resources on the model's health impairment process at the within-person level (Van den Heuvel, Demerouti, Bakker, & Schaufeli, 2010; Van Erp et al., 2014). The results consistently showed that resilience and optimism buffered the relationship between work-related interpersonal conflict (task and relationship conflict) and WNWC. More specifically, on days when employees experienced low levels of resilience, finding it hard to recover and learn from challenging situations, daily interpersonal conflicts led to strain that compromised employees' ability to meet non-work demands. Likewise, on days when employees were less optimistic, the stress associated with

daily interpersonal conflicts at work made it hard for them to fully engage with activities in the non-work domain.

Limitations and Future Research

Some limitations of our study should be noted. First, we used self-report measures. Although, a diary method provides better estimates of individual variables because it takes into account the individual baselines (Petrou, Demerouti, Peeters, Schaufeli, & Hetland, 2012), in the future, multi-source ratings could be considered. For example, researchers could use peer-ratings of interpersonal conflict at work (i.e. colleague- or supervisor-ratings), and partner-ratings of WNBC. Previous studies found that self-and partner ratings of work-family conflict, family-work conflict, and work-family facilitation are related but not overlapping constructs (Grandey, Cordeiro, & Crouter, 2005). Thus, the benefits of using multi-source rating may go beyond improving validity to also enrich the results with additional information that is included in each source of rating.

Second, this study was based on paper-and-pencil diaries distributed via survey packages following the procedure of other diary studies (i.e. Meier, et al., 2013; Sanz-Vergel, Demerouti, Moreno-Jiménez, & Mayo, 2010; Xanthopoulou et al., 2008). To minimize the bias of retrospective reports, students were in contact with participants daily to ensure they completed the diary questionnaire in each of the five days following Green et al. (2006) suggestion. Moreover, correlations between daily measures of interpersonal conflicts are low to moderate. Also, as it is shown in the findings, daily fluctuations are sufficient. Thus, retrospection bias in the sense that participants tried to give similar responses on each day is not extremely likely. However, for future research we recommend the use of handheld computers or mobile telephone to diary data collection to minimise such potential bias.

Third, we acknowledge that the reliability of some scales was lower than ideal on some days (i.e. Resilience $\alpha = .43$ and Optimism mean $\alpha = .56$). However, the reliabilities

were above Cronbach's criterion of .60 for newly/adjusted scales (Nunnally & Bernstein, 1994) on the other days, and our findings are in line with JD-R theory and previous evidence. Moreover, we found that the short scales used in this study had strong correlations with the entire scales that were administered in the general questionnaire. This suggests that potential measurement errors did not have a major impact on our findings. As reliability depends on the inter-item correlations, we think that the low reliability on specific days is a consequence of the low occurrence of specific phenomena (items) on specific days. Therefore, we suggest future research should incorporate more items in the daily scales so that more facets of experiences can be assessed while improving the reliability of the constructs (Hinkin, 1995).

Fourth, although we focussed on the strain-based consequences of interpersonal conflicts to the non-work domain, we acknowledge that task conflict has been found to have positive effects on group (Gamero, González-Romá, & Peiró, 2008) and individual performance (de Wit et al., 2012). More specifically, the positive effects of task conflict have been attributed to a better understanding of the task in hand and evaluation of others' ideas, as well as the ability to voice one's own perspective (de Wit et al., 2012). Importantly, these effects could reflect the acquisition of skills and perspectives, a type of resource related to work-life enrichment (Greenhaus & Powell, 2006). Work-life enrichment occurs when participation in the work domain enhances functioning and affect in the non-work domain (Greenhaus & Powell, 2006). All in all, it seems reasonable to expect that skills and perspectives may derive from task conflict; however, the question as to whether task conflict can really promote work and non-work enrichment may be a useful one for future research.

Fifth, this study focused on task and relationship conflict as the main types of interpersonal conflicts at work identified in the literature (De Wit et al., 2012; De Dreu & Weingart, 2003). Future research could also focus on process conflict, i.e. "disagreements among group members about the logistics of task accomplishment, such as the delegation of

tasks and responsibilities” (De Wit et al., 2012, p. 360). Research suggests that this type of interpersonal conflict can be as detrimental to well-being as relationship conflict (De Wit et al., 2012).

Sixth, the recruitment procedure used could compromise the generalizability of the results. Our sample may be unique and the results may not generalize to the broader population of employees. Specifically, our sample was rather highly educated compared to the Spanish working population. According to Almeida (2005), highly educated individuals show lower reactivity to general stressors and more specifically to interpersonal conflicts. In the present study, levels of conflict are relatively low. However, despite the relatively low levels of interpersonal conflicts, daily fluctuations yielded significant associations between interpersonal conflicts and WNWC. Moreover, similar sample characteristics were found in the study conducted by Meier et al. (2013), who also propose that future research may analyse other samples that more reactive to interpersonal conflicts at work.

Finally, this study focused on the moderating role of personal resources, whereas evidence also exists to support the moderating role of job resources on the demands-strain relationship. For instance, supervisor support has been showed to buffer the negative impact of relationship conflict on job satisfaction (Boz, Martinez-Corts, Munduate, 2009). Moreover, van Daalen, Willemsen and Sanders (2006) have showed that social support reduces work-family conflict either directly or indirectly through altering the impact of stressors. Taken together this empirical evidence, we suggest future research to consider supervisor and co-worker support as potential moderators of the negative effect of interpersonal conflicts at work on WNWC.

Implications and Conclusion

This study underlines the importance of interpersonal conflicts at work as situations that interfere with employees’ personal lives, together with the significance of personal

resources as personal characteristics that buffer the detrimental impact of interpersonal conflicts at work. Organizations should be aware of the detrimental effects of interpersonal conflicts while also recognising the beneficial effects of personal resources. Based on our findings, employees should receive interpersonal conflict management training to increase their resilience levels as a way of reducing the negative consequences of conflict situations encountered at work. They also indicate that organizations should concentrate on fostering employees' positive self-beliefs such as optimism. Specific training techniques have been proposed to cultivate employees' personal resources (Luthans, Avey, Avolio, Norman, & Combs, 2006a). For instance, a highly focused intervention using goal setting and reflective practices for developing resources such as optimism and resilience has proven effective in a number of studies (Luthans et al., 2006a). Another way to increase resilience and optimism is to empower those aspects of the job that will make employees feel more secure and confident about their work tasks and help them to deal with interpersonal conflicts. This can occur when organizations nurture positive and resourceful environments, because these enriched environments have been found to cultivate positive self-beliefs in employees in a natural way, and this has led to steadily flourishing workforces (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009). In other words, the enrichment of the work environment with job resources bolsters employees' personal resources that can be used to deal with interpersonal conflicts at work.

In conclusion, this research is among the first to investigate the detrimental effect of daily task and relationship conflict at work on daily WNWC. Not only does it emphasize that interpersonal conflict negatively influences employees' personal lives, it also suggests possible directions for alleviating the undesirable effects of interpersonal conflicts at work. Increasing employees' levels of resilience and optimism reduces the crippling effects of

interpersonal conflicts at work and enables them to perform effectively when they encounter such negative situations in the course of their working day.

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Table 1.

Means, Standard Deviations, and Intercorrelations between the Model Variables

Variable	M	SD	Items	1	2	3	4	5
1.Task Conflict	1.97	.74	1	-	.61	-.17	-.15	.26
2. Relationship Conflict	1.73	.70	1	.80**	-	-.14	-.20	.19
3. Resilience	3.83	.51	3	-.12*	-.19**	-	.41	-.17
4. Optimism	3.50	.71	3	-.40**	-.40**	.22**	-	-.19
5. Strain-based WNWC	2.28	.98	2	-.02	-.03	-.13**	-.33**	-

Correlations below the diagonal reflect the zero-order correlation of the person-level using the aggregated scores; N=113 Participants.

Correlations above the diagonal reflect the correlations of the day-level, centered variables; N= 565 Data Points. Note that MLwin does not provide significance level of the correlations.

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

Table 2

Multi-level Estimates for the Interaction Effect of Daily Task Conflict (upper part of table) as well as Daily Relationship Conflict (lower part of table) and Daily Resilience on Work-Non-work Conflict

	Model 1		Model 2			
	Estimate	SE	sign	Estimate	SE	sign
Constant ¹	2.281	0.094	***	2.269	0.094	***
Daily task conflict	0.210	0.046	***	0.205	0.046	**
Daily resilience	-0.179	0.074	**	-0.168	0.074	*
Daily task conflict x Daily resilience				-0.181	0.091	*
2*log likelihood		1553.449			1549.541	
Diff-2*log (df)		30.412 (2)	***		3.908 (1)	*
Constant ¹	2.281	0.094	***	2.270	0.094	***
Daily relationship conflict	0.195	0.045	***	0.191	0.045	***
Daily resilience	-0.192	0.074	**	-0.162	0.074	*
Daily relationship conflict x Daily resilience				-0.199	0.087	*
-2*log likelihood		1555.341			1550.135	
Diff-2*log (df)		28.520 (2)	***		5.206 (1)	*

Note. $N = 113$ Participants and $N = 565$ Data Points.¹ Model 1 was compared to a Null Model with the intercept as the only predictor ($\gamma = 2.281$; $SE = 0.094$; $t = 24.265$; $-2*\log = 1583.861$; Level 1 Variance = 0.762; $SE = 0.052$; Level 2 Variance = 0.802; $SE = 0.130$). * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3

Multi-level Estimates for the Interaction Effect of Daily Task Conflict (upper part of table) as well as Daily Relationship Conflict (lower part of table) and Daily Optimism on Strain-based Work-Non-work Conflict

	Model 1		Model 2			
	Estimate	SE	sign	Estimate	SE	sign
Constant ¹	2.281	0.094	***	2.270	0.093	***
Daily task conflict	0.201	0.045	***	0.191	0.045	***
Daily optimism	-0.265	0.066	***	-0.247	0.066	***
Daily task conflict x Daily optimism				-0.170	0.078	*
2*log likelihood		1543.317			1538.590	
Diff-2*log (df)		40.544 (2)	***		4.727 (1)	*
Constant ¹	2.281	0.094	***	2.270	0.093	***
Daily relationship conflict	0.177	0.045	***	0.165	0.045	***
Daily optimism	-0.257	0.067	***	-0.246	0.067	***
Daily relationship conflict x Daily optimism				-0.132	0.068	*
-2*log likelihood		1547.541			1542.853	
Diff-2*log (df)		36.320 (2)	***		4.688 (1)	*

Note. $N = 113$ Participants and $N = 565$ Data Points. ¹ Model 1 was compared to a Null Model with the intercept as the only predictor ($\gamma = 2.281$; $SE = 0.094$; $t = 24.265$; $-2*\log = 1583.861$; Level 1 Variance = 0.762; $SE = 0.052$; Level 2 Variance = 0.802; $SE = 0.130$). * $p < .05$. ** $p < .01$. *** $p < .001$

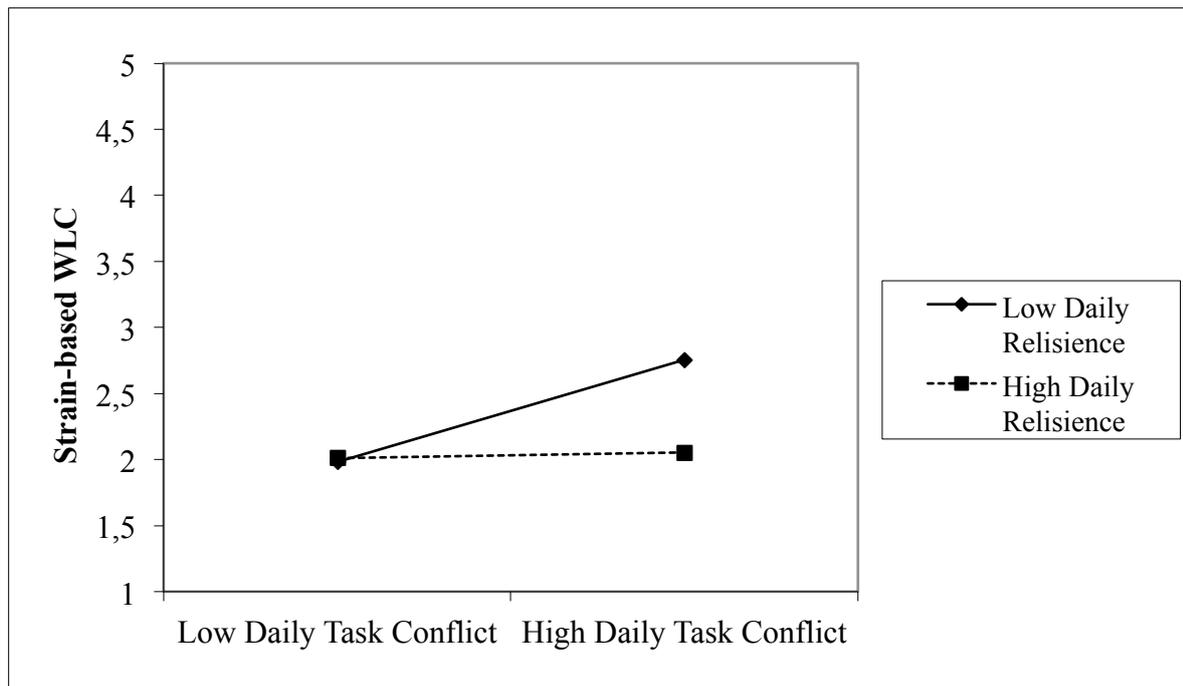


Figure 1. Interaction Effect of Daily Task conflict and Daily Resilience on Daily Strain-based Work-Non-work Conflict (WNL).

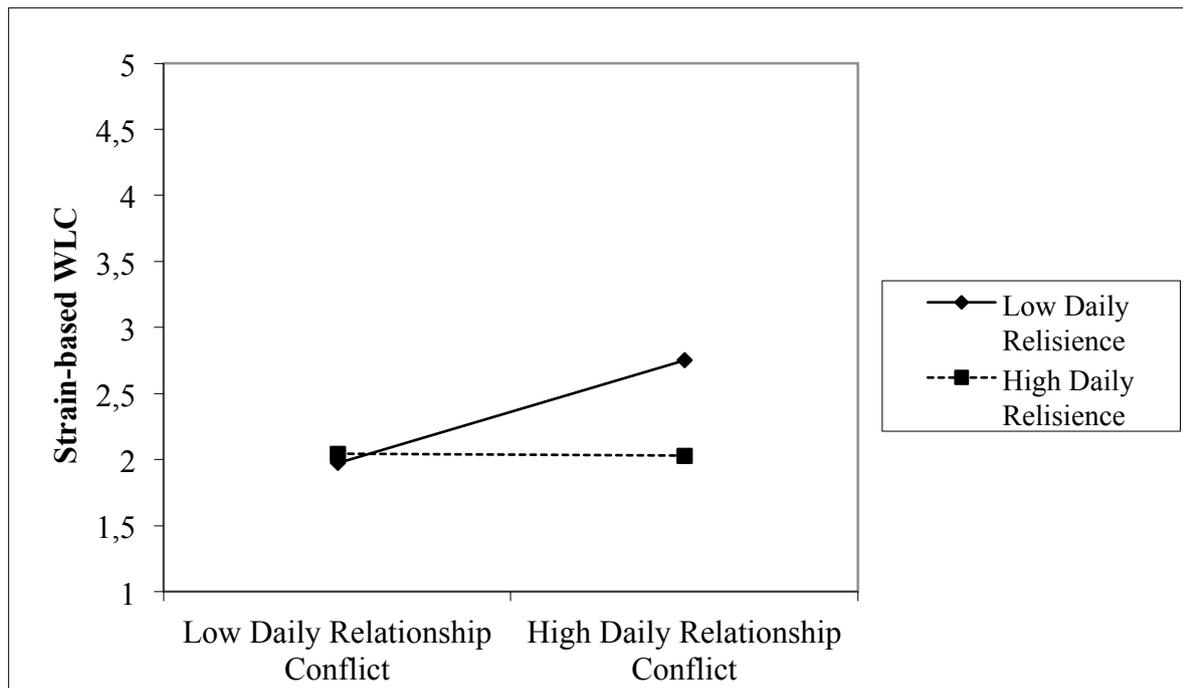


Figure 2. Interaction Effect of Daily Relationship conflict and Daily Resilience on Daily Strain-based Work-Non-work Conflict (WNWC).

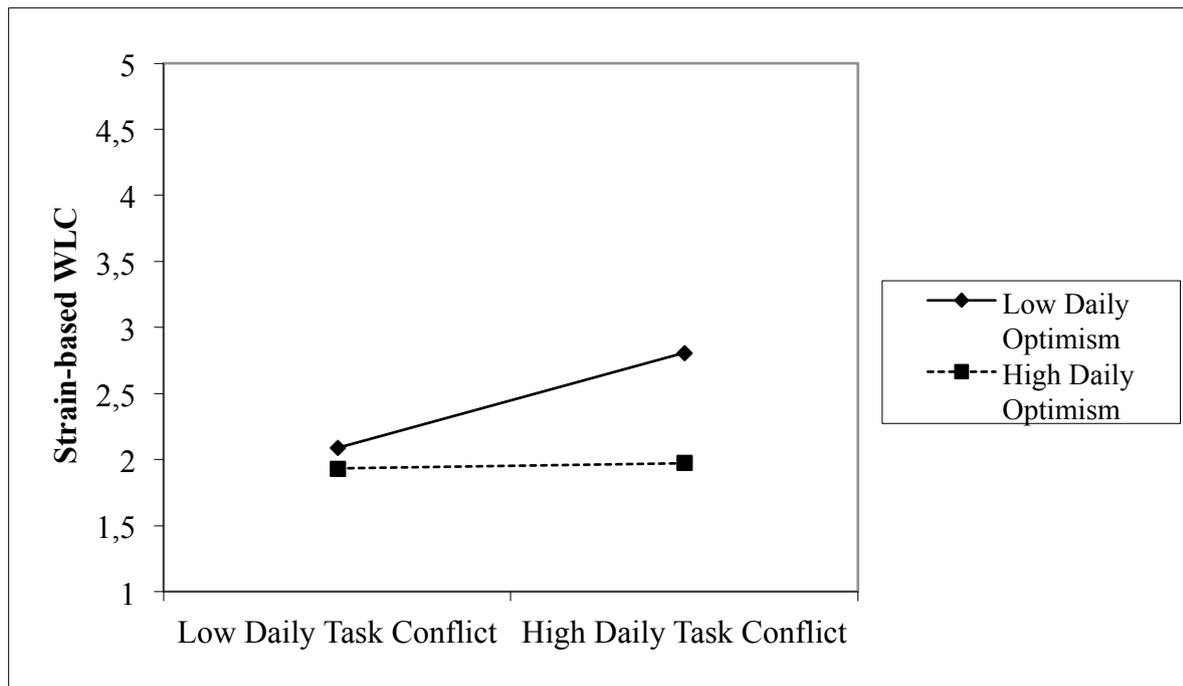


Figure 3. Interaction Effect of Daily Task Conflict and Daily Optimism on Daily Strain-based Work-Non-work Conflict (WNWC).

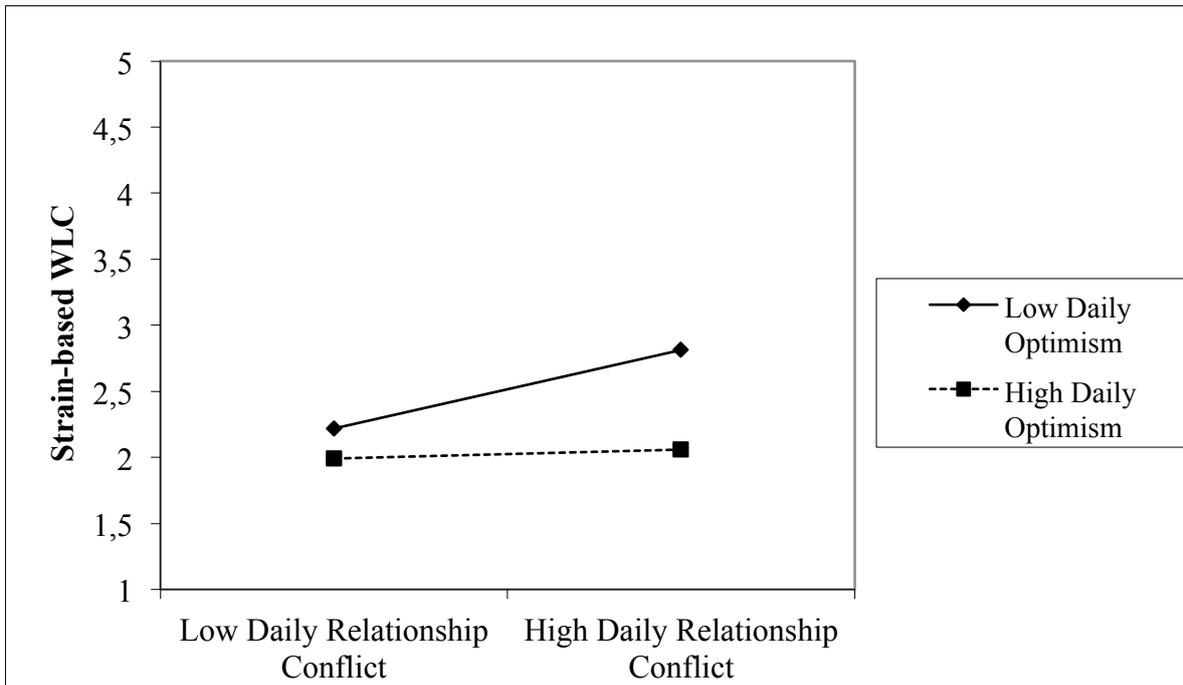


Figure 4. Interaction Effect of Daily Relationship Conflict and Daily Optimism on Daily Strain-based Work-Non-work Conflict (WNWC).