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Reducing conflict-related employee strain: The benefits of an internal locus of control and a problem-solving conflict management strategy

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Workplace conflict is a potent stressor, but most previous research has focused on its effect on productivity and performance rather than on individual well-being. This paper examines the moderating roles of an individual's internal locus of control and a problem-solving conflict management strategy. In the cross-sectional study, among 774 health care workers in the Netherlands, employees' internal locus of control did moderate the relationship between experienced conflict at work and psychological strain, which was measured using a 13-item Dutch adaptation of the Occupational Stress Indicator. In addition, this moderation was mediated by the active conflict management strategy of problem solving; people with a more internal locus of control use a problem-solving conflict management strategy more often and, as a result, experience less psychological strain in cases of workplace conflict. Implications for conflict theory, for future research, and for practice are discussed.

Keywords: conflict management; locus of control; psychological strain; problem-solving; work-related stress

Introduction

Interpersonal conflict is clearly a consequence of people interacting with each other, and therefore a normal experience in society and in organizational life (e.g. Katz & Kahn, 1978). It is therefore not surprising that in the past 20 years, scholars as well as practitioners have attended to workplace conflict and its consequences for individual and team performance. As a result, our understanding of how workplace conflict affects the welfare of organizations in terms of productivity and individual and team performance is quite developed (e.g. De Dreu & Weingart, 2003; Thomas, 1992). However, attention should also be given to the consequences of conflict for the welfare of the individual members of organizations, which is reflected in stress-related outcomes such as psychological strain. This is important for two reasons. First, according to the European Agency for Safety and Health at Work (2007), stress was the second most reported work-related health problem in 2005, affecting over 20% of workers from what was by then the 15 member countries of the European Union, the EU-15, and costing an estimated €20,000 million per year. Second, other research on organizational behaviour has shown negative relationships

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between stress-related "soft" outcomes, including individual health and well-being, and more "hard" measures of performance (Bond & Bunce, 2003; Wright & Cropanzano, 2000), pointing to the relevance of such "soft" outcomes (see also De Dreu & Beersma, 2005).

In this study, we focus on the relationship between workplace conflict and psychological strain. We will specifically examine the moderating role of locus of control (Rotter, 1966), a dispositional variable that reflects the extent to which a person believes that they can control rewards or outcomes in life, on this relationship. We argue that the higher a person's internal locus of control (meaning that they believe themselves to be able to exert control over rewards or outcomes), the weaker will be the relationship between conflict and strain. Furthermore, we maintain that this process is mediated by a problem-solving conflict management strategy, such that a high internal locus of control leads to managing conflicts in a problem-solving way, and thereby exerts a moderating influence on the relationship between interpersonal conflict and psychological strain. Our model for this is shown in Figure 1.

Interpersonal conflict and psychological strain

Interpersonal conflict refers to a person's perception of opposition and differences between two people, or between a person and a group, concerning interests, beliefs, values or the picture of reality (e.g. Pruitt, 1998; Thomas, 1992). Within work organizations, conflict processes may evolve around work and task-related issues or around socio-emotional and relational issues (e.g. Jehn, 1995). In the past, there has been some debate about the potential functionality and benefits of task conflict for organizational effectiveness and team performance (e.g. De Dreu & Weingart, 2003; De Wit & Greer, 2008). For the individual employee however, conflict in general has a rather negative connotation and for most people it is not an enjoyable experience.

In reality, both task and relationship conflicts have been shown to be negatively related to satisfaction (De Dreu & Weingart, 2003). Furthermore, in order to keep a positive social identity (Fiske, 1992) people need to establish positive and enduring relationships with other people (Baumeister, 1995); they strive to be liked by others. According to Giebels and Janssen (2005) it follows that conflict with co-workers is
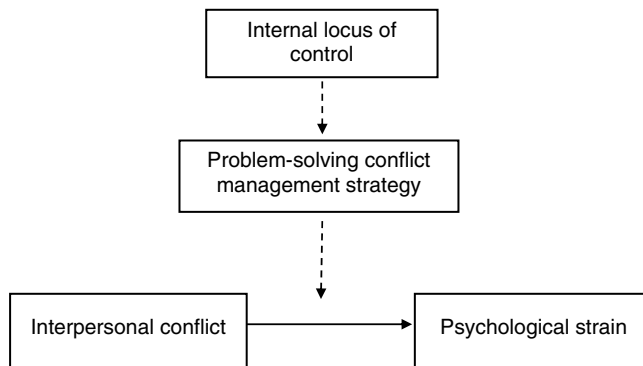

Figure 1. Theoretical model. Broken arrows depict moderation.

stressful in itself, regardless of the type of conflict experienced. Accordingly, they showed that both task and relationship conflict correlate positively with stress.

Indeed, workplace conflict is considered to be one of the most potent stressors in working life (Bolger, Delongis, Kessler, & Schilling, 1989; Newton & Keenan, 1985), bringing about individual stress reactions known as *strain* (Jex & Beehr, 1991). Besides the physical reactions, such as raised adrenaline levels, heart rate and muscle tension that stressors bring about (Quick, Quick, Nelson, & Hurrell, 1997), experiencing of stressors is also related to a variety of psychological reactions. These typically range from feeling upset and worried (Jones & Bright, 2001) to feelings of irritation, anger (Newton & Keenan, 1985) and anxiety (Buunk & Gerichhauzen, 1993). In fact, a growing number of studies show positive correlations between conflict and indicators of strain. Spector, Chen, and O'Connell (2000), for example, found moderate positive correlations between workplace conflict and frustration and anxiety as well as a small but significant correlation between conflict and physical complaints. Other studies, often using a variety of indicators of well-being and health, have reported very similar results, pointing to conflict as a stressor (for a review, see De Dreu, Van Dierendonck, & Dijkstra, 2004).

Locus of control

Although it has been suggested that the need to control the environment is predominant in the human species (Parkes, 1989), people differ in the extent to which they believe they can control rewards or outcomes in life. This dispositional variable is referred to as "Locus of Control" (Rotter, 1966). Those who hold expectancies that they control rewards or outcomes in life have a more internal locus of control and are referred to as "internals", while those who hold expectancies that outside forces or luck control their rewards and outcomes have a more external locus of control and are referred to as "externals" (Rotter, 1966). As such, locus of control is a more *general expectancy* and differs from Bandura's (1977) "self-efficacy" construct, which refers to a person's belief about his or her ability to control a *specific* area.

Locus of control is associated with work success, and with both physical and psychological well-being throughout life in different domains (see also Shapiro, Schwarz, & Astin, 1996). In a longitudinal study, Adrisani and Nestel (1976) found that locus of control both influences and is influenced by work experiences. Specifically, internals were found to be more successful at work, while success at work also increased internal locus of control. Furthermore, (work) locus of control has been demonstrated to be related to job satisfaction and stress outcomes (Johnson, Batey, & Holdsworth, 2009). Not only has research consistently demonstrated that locus of control is related to higher levels of both psychological and physical well-being (see also Muhonen & Torkelson, 2004), it has also been shown to moderate the stressor/strain relationship. Using both cross-sectional and longitudinal data, Parkes (1991) demonstrated that internals who perceived high job demands and low job discretion reported lower levels of anxiety and higher levels of general mental health than externals in the same situation.

In general, people with a more internal locus of control show a weaker relationship between the presence of a stressor and experienced strain than people with a more external locus of control (Lachman & Weaver, 1998). Since conflict acts

as a stressor, locus of control may influence the relationship between conflict and psychological strain in a similar way, but the moderating influence of locus of control on the conflict–strain relationship has never been empirically examined. Doing so is the goal of the present study.

Control, coping and problem-solving conflict management

In line with the notion that internal locus of control is positively related to well-being, Latack (1986) argued that coping behaviour can be potentially beneficial depending on the degree to which it enables the individual to exhibit control; "the degree to which actions and cognitive reappraisals are proactive, take-charge in tone" (p. 378). A similar link between control and coping is made in cognitive adaptation theory (Aspinwall & Taylor, 1992), which proposes that the experience of control is positively related to problem-focused (i.e. active) coping strategies. Recent empirical research among bank employees revealed that active coping ("direct action coping") positively predicted job satisfaction and negatively predicted psychological distress (Fortes-Ferreira, Peiró, Conzález-Morales, & Martin, 2006).

The relationship between control and pro-active behaviour is also reflected in taxonomies concerning conflict management strategies that are based on the Dual Concern Model (Blake & Mouton, 1964; Rubin, Pruitt, & Kim, 1992). In this model, conflict management is a function of high or low concern for own outcomes combined with high or low concern for the outcomes of the other party. The resulting four-way taxonomy includes two active conflict management strategies (forcing and problem solving), which are characterized by a *high* concern for own outcomes, and two more passive strategies (avoiding and yielding), which involve a *low* concern for own outcomes (Blake & Mouton, 1964; Thomas, 1992).

Within the conflict literature, problem solving is generally seen as the most constructive conflict management strategy (Blake & Mouton, 1970, 1981; Carnegie Miller, Lefcourt, Holmes, Ware, & Saleh, 1986), because of its focus on own outcomes while – at the same time – respecting social relationships.

High concern for own outcomes: When people engage in problem solving, their attitude is oriented towards the attainment of desired outcomes: they keep their eyes on the ball and behave in an assertive way; they are in control of their own actions and, at least partially, their outcomes (Van de Vliert & Euwema, 1994). When a person "takes control" over the conflict by reacting actively, the chances are that he or she will experience less frustration and helplessness than when acting passively (i.e. engaging in yielding or avoiding behaviour).

High concern for others' outcomes: When choosing a problem-solving strategy, together with a high concern for their own outcomes people also show a high concern for the outcomes of the other party. By exchanging information about priorities and preferences, by asking each other questions, and by searching for mutually satisfactory solutions (Rubin et al., 1994) people are taking control over the conflict situation while at the same time respecting the social relationships. In this regard problem solving essentially differs from *forcing*, the other active conflict management strategy, which reflects a low (rather than a high) concern for others' outcomes. Forcing refers to persuading the other party to yield by making threats, imposing penalties and making demands that exceed what may be acceptable (Blake & Mouton, 1964; Thomas, 1992). Acting in a forcing way implies a lack of

consideration of other parties' wishes, views and interests and therefore puts pressure on the interpersonal relationship (Dijkstra, De Dreu, Evers, & Van Dierendonck, 2009). This is important because previous studies have consistently shown that good and close relationships with other people are essential for self-reported health (Melchior, Berkman, Niedhammer, Chea, & Goldberg, 2003) and well-being (Baumeister, 1995), and a major source of life satisfaction (Barger, Donoho, & Wayment, 2009) and happiness (Schulz, 1995).

Hence, we believe that through the particular combination of focusing on own outcomes while at the same time respecting social relations by considering the outcomes of the other party, in managing interpersonal conflict a problem-solving strategy may buffer the conflict – psychological strain relationship.

The present study

From the stress literature, we know that active coping styles buffer the negative effects of stressors (Koeske, Kirk, & Koeske, 1993). Since conflict acts as a stressor we draw a parallel between conflict management strategies and coping styles in order to predict psychological strain. Dijkstra et al. (2009) presumed that internal locus of control had an important role, but did not measure it. We argue that locus of control is a moderator of the conflict–strain relationship. We expect that interpersonal conflict has less impact as a stressor for people with a high internal locus of control than for people with a low internal locus of control (*Hypothesis 1*).

Moreover, we expect that managing the conflict by a problem-solving strategy reduces the negative effects of conflict on psychological strain (*Hypothesis 2*). We further predict that a more internal locus of control is related to the use of a problem-solving conflict management strategy, such that problem solving mediates the moderating effect of internal locus of control on the conflict – psychological strain relationship (Hypothesis 3).

Method

Sample

Participants were members of the nursing and ancillary staff of an institution for disabled people. Out of 1490 employees, 774 returned the questionnaire (response rate of 52%) of which 649 (84%) were women. The mean age of the employees was 39 years ($SD = 10.4$) and their mean length of service was 7.7 years ($SD = 7.4$). Of all respondents, 534 (69 %) were working 32 hours per week or less. The educational level of the employees in our sample ranged from high school to PhD.

Procedure

Employees received a letter from the research team, inviting them to participate in the study. It emphasized the importance of participating as well as its voluntary and anonymous nature. The letter further explained the purpose of the study as being concerned with working conditions and their consequences.

Questionnaires were administered during daytime work hours, or were sent to the home addresses of employees who could not be reached at work. Employees were asked to return completed questionnaires within two weeks using a pre-stamped return envelope.

Measures

Psychological strain. We used a Dutch adaptation of the Occupational Stress Indicator by Evers, Frese, and Cooper (2000). This scale contained 13 items regarding symptoms of psychological strain, such as feeling miserable, panicky, upset, and worried. Each item had five response choices with the response categories varying across items (for instance, 1 = *almost never* to 5 = *very often* or 1 = definitely true to 5 = definitely untrue). However, all items were scored such that higher scores indicated higher psychological strain. Sample items are: "Do you usually feel relaxed and at ease or do you tend to feel restless and tense?", and "If the job you are doing starts to go wrong, do you sometimes feel a lack of confidence and panicky?". Cronbach's alpha was .88.

Experience of interpersonal conflict. In the instructions respondents read before filling out the questionnaire, we explained that conflict concerns disagreements about various issues, and/or mutual irritation, and/or frictions at work. We also pointed out that we were interested in *the respondent's experiences*, and thus that the experiences of other parties were of no relevance. Finally, in order to give respondents a clear frame of reference, we explained that questions referred to the situation within the respondent's team or department. We then assessed interpersonal conflict experiences using a scale based on a refinement of the Intragroup Conflict Scale Jehn (1992, 1994, 1995) developed by Pearson, Ensley, and Amason (2002). The instrument contained four items regarding task conflict and four items regarding relational conflict. The eight items were to be answered on a 5-point scale ranging from 1 (*almost never*), to 5 (*very often*). Sample items are: "How many disagreements over different ideas are there?" (task conflict) and "How much tension is there in the group during decisions?" (relational conflict). Cronbach's alpha was .81 for the task conflict scale, .79 for the relationship conflict scale, and .89 for the total conflict scale.

Problem-solving conflict management strategy. To measure problem-solving conflict management strategy, we used a subscale of the Dutch Test for Conflict Handling (DUTCH: De Dreu, Evers, Beersma, Kluwer, & Nauta, 2001). Respondents were asked to report how they behave in the case of an interpersonal conflict at work. The problem-solving conflict management strategy was measured by four items to be answered on a 5-point Likert scale ranging from 1 (*almost never*), to 5 (*very often*). A sample item was: "I stand up for my own and other's goals and interests" Cronbach's alpha was .74.

Internal locus of control. We used a Dutch adaptation of the locus of control scale of the Occupational Stress Indicator (Evers et al., 2000). We used the "internality" sub-scale, which consists of five items. A sample item was "I am in control of my own career." Items were to be answered on a 5-point scale ranging from 1 (*completely disagree*), to 5 (*completely agree*). Cronbach's alpha was .68.

Results

Means, standard deviations, scale reliabilities and intercorrelations of variables are shown in Table 1. This table shows a significant correlation between conflict and psychological strain ($r = .30$, $p < .001$). Also, it shows that internal locus of control was positively related to problem-solving strategy ($r = .27$, $p < .001$). Moreover, both internal locus of control and problem-solving strategy were negatively related to psychological strain ($r = -.28$, $p < .001$ and $r = -.21$, $p < .001$, respectively). Finally the correlation between task conflict and relationship conflict was .76 ($p < .001$). Full details of the separate analyses for task and relationship conflict are given in Table 2 and 3. Results for both conflict types show the same patterns as the result for the undifferentiated conflict scale.

Moderator analyses (Hypotheses 1 and 2)

In all the analyses we controlled for age, gender and educational level. To test the moderating effect of internal locus of control and problem solving on the relationship between conflict and psychological strain (Hypotheses 1 and 2), for each hypothesis two sets of hierarchical regressions were performed. In both analyses, psychological strain served as the dependent variable. At step 1, we entered the control variables age, gender and educational level, as well as conflict and internal locus of control (or problem solving). At step 2, the cross-product term of conflict and internal locus of control (or conflict and problem solving) was entered. Following the advice of Aiken and West (1991), predictor variables were mean-centred around zero before calculating their cross-product terms.

We first tested the prediction that internal locus of control moderates the positive relationship between interpersonal conflict and psychological strain (Hypothesis 1). As can be seen in Table 2, the results showed that step one variables explained a significant amount of variance, $R^2 = .15$, $F(5, 645) = 22.30$, $p < .001$. More conflict ($\beta = .25$, $t = 6.87$, $p < .001$) and a lower score on the internal locus of control scale ($\beta = -.23$, $t = -6.29$, $p < .001$) were related to more psychological strain. The interaction term added at the second step explained an additional amount of variance in psychological strain, $\Delta R^2 = .01$, $F(1, 644) = 419.33$, $p = .05$. The index for effect size (f^2) of the interaction term was .012, which can be called a small effect (Cohen, 1988, p. 413). Consistent with hypothesis 1, interpersonal conflict was positively related to psychological strain, but far less so for people who had high

Table 1. Descriptive statistics and zero-order correlations ($N = 774$).

Variable/Scale	M	SD	α	2	3	4	5	6
1. Conflict (undifferentiated)	2.09	0.70	.89	.94***	.94***	−.13**	−.08*	.30***
2. Task conflict	2.23	0.76	.78		.76***	−.14**	−.08*	.29***
3. Relationship conflict	1.94	0.72	.82			−.09*	−.07	.26***
4. Internal locus of control	4.06	0.51	.68				.27***	−.28***
5. Problem-solving strategy	3.93	0.58	.74					−.21***
6. Psychological strain	2.00	0.61	.88					

Note: *$p < .05$; ** $p < .01$; ***$p < .001$.

Table 2. Regression results for internal locus of control and problem-solving strategy as moderators of the relationship between conflict and psychological strain.

	Internal locus of control	Problem-solving conflict management strategy
Step 1 (Main effects)[1]		
Age	−.09*/ −.09*/ − .10**	− .13***/ − .12**/ − .14***
Gender	.03/.02/.03	.01/.01/.01
Educational level	.04/.03/.05	.06/.05/.07
Conflict (undifferentiated)	.25***	.27***
Task conflict	.24***	.26***
Relationship conflict	.22***	..23***
Internal LOC		
Conflict (undifferentiated)	− .23***	
Task conflict	− .23***	
Relationship conflict	− .24***	
Problem-solving strategy		
Conflict (undifferentiated)		− .18***
Task conflict		− .18***
Relationship conflict		− .19***
R^2 Step 1		
Conflict (undifferentiated)	.15***	.14***
Task conflict	.14***	.13***
Relationship conflict	.13***	.12***
Step 2 (Interaction)		
Conflict (undifferentiated) × Internal LOC	− .07*	
Task conflict × Internal LOC	− .08*	
Relationship conflict × Internal LOC	− .08*	
Conflict (undifferentiated) × Problem– solving strategy		− .11**
Task conflict × Problem-solving strategy		− .10**
Relationship conflict × Problem– solving strategy		− .10*
ΔR^2 Step 2		
Conflict (undifferentiated)	.01*	.01**
Task conflict	.01*	.01**
Relationship conflict	.01*	.01*
Total R^2		
Conflict (undifferentiated)	.15*	.15**
Task conflict	.15*	.14**
Relationship Conflict	.14*	.13**

Note. Standardized regression coefficients of the significant models are depicted. LOC = locus of control.
[1]Standardized regression coefficients for Age, Gender and Educational level are reported respectively for Conflict (undifferentiated)/ Task conflict/ Relationship conflict.
*$p < .05$; **$p < .01$; ***$p < .001$.

($B = .15$, $t = 3.38$, $p < .001$) rather than low internal locus of control ($B = .33$, $t = 7,49$, $p < .001$). A plot of the interaction effect is shown in Figure 2.

We then tested the prediction that problem solving, as an active conflict management strategy, weakens the positive relation between conflict and strain (Hypothesis 2). As can be seen in Table 2, step 1 variables explained a significant amount of variance, $R^2 = .14$, $F(5, 647) = 20.32$, $p < .001$. Inspection of the regression weights showed that more conflict ($\beta = .27$, $t = 7.19$, $p < .001$, and less problem solving ($\beta = -.18$, $t = -4.93$, $p < .001$) were related to more psychological strain. The interaction term added at step 2 explained an additional amount of variance in strain, $\Delta R^2 = .01$, $F(1, 46) = 18.63$, $p = .003$. The index for effect size (f^2) of the interaction term was .012, which can be called a small effect (Cohen, 1988, p. 413). Consistent with Hypothesis 2, conflict was positively related to psychological strain, but far less so when employees engaged frequently ($B = .16$, $t = 3.53$, $p < .001$) rather than when they engaged infrequently ($B = .29$, $t = 6.61$, $p < .001$) in a problem-solving strategy. A plot of the interaction effect is shown in Figure 3.

Mediation analysis (Hypothesis 3)

To test the prediction that the (moderating) influence of internal locus of control on the relationship between interpersonal conflict and psychological strain is mediated by the moderating influence of conflict management on that relationship, we tested for mediated moderation following the steps suggested by Muller, Judd, and Yzerbyt (2005). The first requirement for mediated moderation is that there is an overall moderation effect; in our case this means that the relationship between conflict and strain needs to be moderated by internal locus of control. The test of Hypothesis 1 described above shows that this is the case. The second requirement for mediated
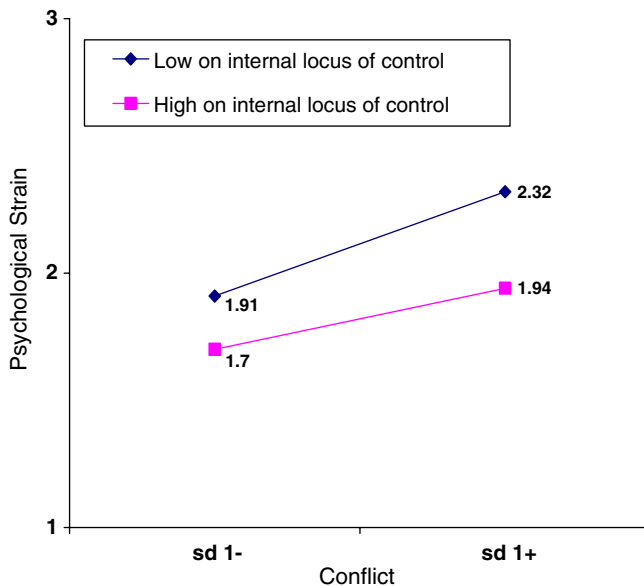

Figure 2. Interaction plot of the relationship between conflict and psychological strain, moderated by internal locus of control.

moderation is that there is a main effect of the moderator (internal locus of control) on the mediator (problem-solving conflict management strategy). Table 1 shows a significant correlation between internal locus of control and problem solving ($r = .27$, $p < .001$), which means that this requirement was also met.

The third and final requirement for moderated mediation is that the interactive effect of the independent variable and the moderator (conflict and internal locus of control in our case) should no longer be significant when controlling for the interactive effect between the independent variable and the mediator (i.e. conflict and problem solving). Expressed in a statistical formula, and using the terminology of Muller et al. (2005), the regression equation we tested was: $Y = \beta\text{constant} + \beta X + \beta Mo + \beta XMo + \beta Me + \beta XMe + \varepsilon$.

To assess this, we ran a regression analysis in which psychological strain served as the dependent variable and conflict, internal locus of control, the cross-product of conflict and internal locus of control, problem-solving strategy and the cross-product of conflict and problem-solving strategy were entered as predictors. As can be seen in Table 3, the results showed a significant model, $R^2 = .18$, $F(8, 641) = 16.97$, $p < .001$. Inspection of the regression weights revealed a significant contribution of the cross-product term of conflict and problem-solving strategy ($\beta = -.09$, $t = -2.42$, $p = .02$), and that the originally significant interaction between conflict and internal locus of control was reduced to non-significance ($\beta = -.04$, $t = -1.09$, $p = .28$). The index for effect size (f^2) of the cross-product term was .012, which can be called a small effect (Cohen, 1988, p. 413). A Sobel test confirmed the significance of the indirect path, $Z = -2.01$, $p = .04$. These results support Hypothesis 3.
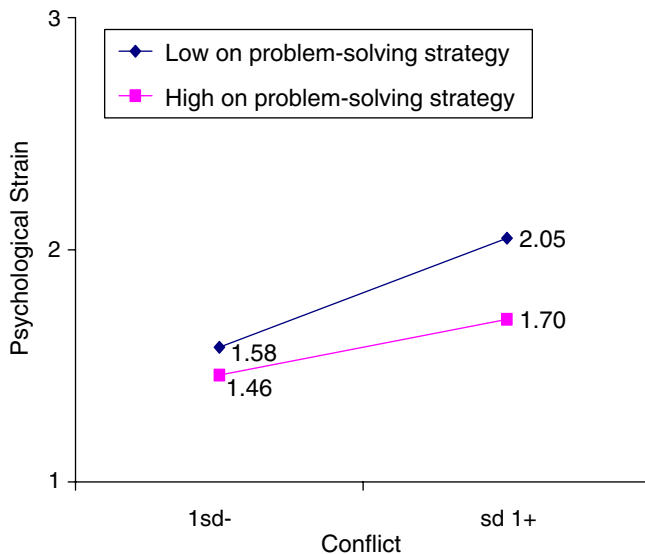

Figure 3. Interaction plot of the relationship between conflict and psychological strain, moderated by problem-solving conflict management strategy.

Discussion

In this study, we have demonstrated that employees who experience high levels of internal locus of control suffer less from interpersonal conflict in terms of psychological strain than those who experience low levels of internal locus of control. High internal locus of control was found to be positively related to using a problem-solving conflict management strategy. Actively managing the conflict by problem solving in turn worked as a buffer against psychological strain. These findings have important theoretical and practical implications.

Contributions and implications

A first contribution of this study is that it broadened our knowledge of workplace conflict by examining psychological strain as an important variable in the relationship between conflict at work and its possible consequences for the welfare of organizations via employee strain. In building our argument, we drew a parallel with theoretical notions from the stress literature and explained our view of conflict as a stressor. We took the comparison one step further by conceptualizing conflict

Table 3. Least squares regression results for mediated moderation.

Independent variables[1]	(dv = Psychological strain)	
	β	t
Age (conflict/task/relationship)	$-.11 / -.10 / -.12$	$-3.01^{**} / -2.77^{**} / -3.32^{**}$
Gender (conflict/task/relationship)	.03/.02/.03	.74/.47/.67
Education level (conflict/task/relationship)	.04/.04/.05	1.20/.98/1.32
Conflict (undifferentiated)	.26	7.00***
Task conflict	.24	6.43***
Relationship conflict	.23	6.32***
Internal locus of control	$-.19$	-4.95^{***}
Task conflict	$-.19$	-4.96^{***}
Relationship conflict	$-.20$	-5.27^{***}
Conflict × Internal locus of control	$-.04$	-1.08
Task conflict × Internal locus of control	$-.05$	-1.27
Relationship conflict × Internal locus of control	$-.05$	-1.28
Problem-solving strategy	$-.13$	-3.35^{**}
Task conflict	$-.13$	-3.30^{**}
Relationship conflict	$-.13$	-3.37^{**}
Conflict × Problem-solving coping strategy	$-.09$	-2.42^{*}
Task conflict × Problem-solving strategy	$-.09$	-2.16^{*}
Relationship conflict × Problem-solving strategy	$-.07$	$-1.78\dagger$
R^2	.18***	

Note: Standardized regression coefficients are depicted. dv = dependent variable; [1]Standardized regression coefficients of Age, Gender and Education level are reported respectively for Conflict (undifferentiated), Task conflict and Relationship conflict.
$\dagger p < .10$, $^*p < .05$, $^{**}p < .01$, $^{***}p < .001$.

management as a coping strategy. We believe that the conflict literature could benefit from this view on conflict as a stressor with stress-related outcomes. This is because it increases our understanding of the impact of conflict, as it looks beyond effects of conflict on "hard" organizational outcomes, such as performance and turnover, and takes into account the broader psychological context in which conflicts occur. As such, our study addresses the call to focus more on "softer" outcomes of conflict (see, for example, De Dreu & Beersma, 2005), and fits well with a number of recent studies that have adopted this broader view (Dijkstra et al., 2009; León-Pérez, Ramírez-Marín, & Medina, 2009).

The significance of looking at psychological strain as an outcome variable of conflict and reactions to conflict also derives from altered views regarding the goals that an organization should achieve. Nowadays there is a tendency to widen the scope of organizational goals beyond profit making, effectiveness and/or survival (Cascio, 2006). As a consequence, striving to uphold moral duties and ethical values has been recognized not only as a means to an end but also as an ambition in itself (see also Scott, 2003). In accordance with this altered vision, enhancing the well-being of employees not only serves to raise productivity, but is also recognized as an organizational goal in itself (Cascio, 2006).

A second and more specific contribution of our study is the identification of problem solving as a coping strategy. We found that actively coping with conflict through problem solving weakened the conflict–psychological strain relationship. This is in line with research on coping with difficult situations in general, which has shown that avoidance coping strategies are associated with higher levels of reported strain (Jex, Bliese, Buzzell, & Primeau, 2001; Koeske et al., 1993) and lower levels of well-being and performance (Ben-Zur, 1999). Our study therefore further supports the notion that pro-active problem-solving behaviour through which people exert control is a beneficial strategy in dealing with the negative consequences of stressors in general and of interpersonal conflict in particular.

A third contribution of the current study is that we identified internal locus of control as a mechanism behind successful conflict management strategies. This points to yet another important factor to be considered when trying to disentangle the relationship between workplace conflict and psychological strain. Previously, Dijkstra et al. (2009) alluded to the possibility that internal locus of control might affect this relationship, but that study did not include a measure of internal locus of control. In the present study, we did measure the effects of internal locus of control, and revealed that not only did this variable buffer the conflict–strain relationship, it did so through its relationship with a problem-solving conflict management strategy.

The previous work by Dijkstra et al. (2009) particularly drew attention to the need to refrain from passive conflict management strategies so as *not to increase* the negative consequences of the conflict. However, the current study goes further than this, by pointing to the possibility of actually *decreasing* the negative consequences of interpersonal conflict. Job coaches, managers and all others entrusted with guidance concerning interpersonal processes associated with organizational goals could benefit from these results. A starting point would be acknowledgement of the important roles of internal locus of control, and a problem-solving conflict management strategy. One could argue, though, that it is generally assumed that locus of control is fairly stable over time (Phares, 2001). As a consequence an "external" is not likely to change overnight into an "internal". However, there is

some evidence that locus of control can change over time (Adrisani & Nestel, 1976; Legerski, Cornwall, & O'Neil, 2006). Longitudinal studies should further examine if, and how, organizations could cultivate an internal locus of control in their employees. In the meantime, following Cartwright and Cooper (2004) we suggest that externals learn techniques to modify the way in which they evaluate and subsequently handle stressors such as interpersonal conflict. This kind of training has been successful in improving coping with other stressful events (Meichenbaum & Jaremko, 1983).

Limitations

Several limitations of the present study warrant caution in the interpretation of the results. An important limitation relates to the possibility that the results could be accounted for by variables that we did not assess. Due to the cross-sectional design of our study, it is possible that unmeasured variables related to the constructs we assessed accounted for the observed relationships. To rule out the possibility that such variables were responsible for our findings, future research should ideally experimentally manipulate the variables we measured here. Earlier studies have shown that conflict situations can be created in the laboratory (see, for example, Beersma & De Dreu, 2005). However, in the current study, we conceptualized the ability to control as a stable individual difference variable, operationalized as internal locus of control, which, by nature, cannot be manipulated in an experimental setting. Experimental follow-up studies of the current research should therefore operationalize control differently, to rule out the possibility that the effects we found were due to unmeasured variables.

Moreover, our cross-sectional design does not enable us to gain insight in the causal patterns responsible for the effects we observed. As such, we cannot be certain as to whether conflict causes strain, strain causes conflict, or the two variables mutually influence each other. Notwithstanding this limitation, our data do provide evidence that high internal locus of control effectively buffers the conflict–strain relationship. We believe that this is a valuable contribution to the existing literature on conflict and strain, as it gives insight into the moderating role of internal locus of control and the mechanism by which it fulfils this role (i.e. by increasing problem-solving behaviour in conflict situations).

A further limitation is that all of our data were provided by the respondents, leading to self-report bias and common-method concerns. However, although common source variance may be a plausible alternative explanation for finding main effects, it is much harder for it to explain complicated patterns of data such as the moderated mediation that we predicted and observed. This notwithstanding, future research should seek to obtain objective measures, for instance on absenteeism and/or sickness leave, and use peer ratings regarding the conflict management strategies that are used.

A final issue that may be seen by some as a limitation is that in this study, the relationship between conflict and well-being was examined without differentiating between types of conflict. This choice was related to our conceptualization of conflict as a stressor. Regardless of the specific conflict issue, this stressor elicits negative arousal and all kinds of unpleasant emotions that were expected and have been shown to be associated with reduced well-being (see De Dreu & Weingart, 2003;

Giebels & Janssen, 2005). Moreover, the correlation between task- and relationship-conflict consistently turns out to be rather strong (De Dreu & Weingart, 2003; Simons & Peterson, 2000), which indicates that the two types of conflict overlap substantially, as we also found in the current study (the correlation between task-and-relationship conflict we observed was .76, $p < .001$). Nevertheless, for exploratory purposes, we tested our predictions for both task and relational conflict separately. Results for both conflict types showed the same patterns as the results for the undifferentiated conflict scale, as depicted in Tables 2 and 3.

Suggestions for future research

As was explained in our introduction, problem solving is not the only conflict management strategy that would qualify as "active". The same could be said about forcing. Yet, in striving to control desired outcomes, the two strategies differ substantially from one another. Forcing is characterized by compromising people (the other party) in such a way that they are obliged to take an action whether they wish to or not. As such, forcing may influence the conflict – psychological strain relationship in a quite different way from that in which does problem solving. For example, the possible positive effects of a forcing strategy – gaining control over the outcome – might be cancelled out by its negative side-effects regarding the social relationships of the parties involved in the conflict (see also Dijkstra et al., 2009). Until now this possibility has never been examined and it would be interesting if follow-up research were to focus more particularly on the consequences of forcing on the conflict–strain relationship.

It may also be useful to extend investigations from the individual to the group level. The associations between conflict, conflict management and psychological strain outlined in this article were all located at the individual level of analysis – an individual experiences conflict and manages it in a more or less effective way, and it is the psychological strain that they experience that is assumed to vary as a consequence. Specifically, the goal of the current paper was to demonstrate that the relationship between individual conflict experiences and psychological strain is moderated by internal locus of control, which influences the conflict–strain relationship through problem solving. However, various authors (e.g. De Dreu et al., 2004; Gelfand, Leslie, & Keller, 2008; Mohammed, Klimoski, & Rentsch, 2000) have suggested that units within organizations (i.e. teams or work groups), or even entire organizations, develop a conflict culture in which people influence one another, and as such create their own social environment. This environment might play an important part in determining how conflict is viewed and valued, and what conflict management strategies are deemed (in)appropriate. Although this is beyond the scope of the current paper, future research is warranted here: first, to establish whether conflict cultures can be meaningfully distinguished within organizations, second, to test the assumption that experiencing internal and external locus of control may in part be a function of the reference group with which workers compare themselves, and third, to establish whether conflict culture does indeed have reliable associations with conflict management strategies and experienced psychological strain.

Conclusion

Most conflict research has focused on the impact of workplace conflict on productivity and performance. Relatively few studies have devoted attention to the important topic of conflict as a stressor and its resulting consequences for individual well-being. This study combined conflict research with research on stress to reveal that the relatively stable characteristic of internal locus of control, through its link with problem-solving conflict behaviour, serves as a buffer in the conflict – psychological strain relationship. Continued research on coping with conflict and the resulting stress-related consequences would further increase our understanding of this process and hopefully enable us to identify other possible mediators and moderators of this stressor–strain relationship.

References

Adrisani, P.J., & Nestel, G. (1976). Internal-external control as contributor to and outcome of work experience. *Journal of Applied Psychology*, *61*, 156–165.

Aiken, L.S., & West, S.G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage.

Aspinwall, L.G., & Taylor, S.E. (1992). Modeling cognitive adaptation: A longitudinal investigation of the impact of individual differences and coping on college adjustment and performance. *Journal of Personality and Social Psychology*, *63*, 989–1003.

Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.

Barger, S.D., Donoho, C.J., & Wayment, H.A. (2009). The relative contributions of race/ethnicity, socioeconomic status, health, and social relationships to life satisfaction in the United States. *Quality of Life Research*, *18*, 179–189.

Baumeister, R.F. (1995). *The personal story of an interpersonal psychologist*. New York: Mcgraw-Hill.

Beersma, B., & De Dreu, C.K.W. (2005). Conflict's consequences: Effects of social motives on post-negotiation creative and convergent group functioning and performance. *Journal of Personality and Social Psychology*, *89*, 358–374.

Ben-Zur, H. (1999). The effectiveness of coping meta-strategies: Perceived efficiency, emotional correlates and cognitive performance. *Personality and Individual Differences*, *26*, 923–939.

Blake, R.R., & Mouton, J.S. (1964). *The managerial grid*. Houston, TX: Gulf.

Blake, R.R., & Mouton, J.S. (1970). The fifth achievement. *Journal of Applied Behavioural Science*, *6*, 413–426.

Blake, R.R., & Mouton, J.S. (1981). Management by grid principles or situationalism: Which? *Group and Organization Studies*, *6*, 439–455.

Bolger, N., DeLongis, A., Kessler, R.C., & Schilling, E.A. (1989). Effects of daily stress on negative mood. *Journal of Personality and Social Psychology*, *57*, 808–818.

Bond, F.W., & Bunce, D. (2003). The role of acceptance and job control in mental health, job satisfaction, and work performance. *Journal of Applied Psychology*, *88*, 1057–1067.

Buunk, A.P., & Gerrichauzen, J. (1993). *Stress en werk [Stress and work]*. Heerlen, The Netherlands: Wolters-Noordhof/Open Universiteit.

Carnegie Miller, P., Lefcourt, H.M., Holmes, J.G., Ware, E.E., & Saleh, W.E. (1986). Marital locus of control and marital problem solving. *Journal of Personality and Social Psychology*, *51*, 161–169.

Cartwright, S., & Cooper, C. (2004). Individually targeted interventions. In J. Barling, E. Kevin Kelloway, & M. R. Frone (Eds.), *Handbook of work stress* (pp. 607–622). Thousand Oaks, CA: Sage.

Cascio, W.F. (2006). *Managing human resources: Productivity, quality of work, profits*. New York: McGraw-Hill/Irwin.

Cohen, J. (1988). *Statistical power analysis for the behavioural sciences* (2nd ed). Hillsdale, NJ: Lawrence Erlbaum Associates.

De Dreu, C.K.W., & Beersma, B. (2005). Conflict in organizations: Beyond effectiveness & performance. *European Journal of Work & Organizational Psychology*, *14*, 105–117.

De Dreu, C.K.W., Evers, A., Beersma, B., Kluwer, E.S., & Nauta, A. (2001). A theory-based measure of conflict management strategies in the work place. *Journal of Organizational Behaviour*, *22*, 645–668.

De Dreu, C.K.W., Van Dierendonck, D., & Dijkstra, M.T.M. (2004). Conflict at work and individual well-being. *The International Journal of Conflict Management*, *15*, 1–18.

De Dreu, C.K.W., & Weingart, L.R. (2003). Task versus relationship conflict, team member satisfaction, and team effectiveness: A meta-analysis. *Journal of Applied Psychology*, *88*, 741–749.

De Wit, F.R.C., & Greer, L.L. (2008). *The black-box deciphered: A meta-analysis of team diversity, conflict, and team performance.* Paper presented at the 2008 annual meeting of the Academy of Management, Anaheim, CA.

Dijkstra, M.T.M., De Dreu, C.K.W., Evers, A., & Van Dierendonck, D. (2009). Interpersonal conflict at work: How conflict management is related to employee strain. *European Journal of Work and Organizational Psychology*, *18*, 405–423.

European Agency for Safety and Health at Work. (2007). *European risk observatory report: Expert forecast on emerging psychosocial risks related to occupational safety and health.* Available from European Agency for Safety and Health at Work Web site, http://osha.europa.eu/en

Evers, A., Frese, M., & Cooper, C.L. (2000). Revisions and further developments of the Occupational Stress Indicator: LISREL results from four Dutch studies. *Journal of Occupational and Organizational Psychology*, *73*, 221–240.

Fiske, A.P. (1992). The four elementary forms of sociability: Framework for a unified theory of social relations. *Psychological Review*, *99*, 689–723.

Fortes-Ferreira, L., Peiró, J.M., Conzález-Morales, G., & Martin, I. (2006). Work-related stress and well-being: The roles of direct action coping and palliative coping. *Scandinavian Journal of Psychology*, *47*, 293–302.

Gelfand, M.J., Leslie, L.M., & Keller, K.A. (2008). On the etiology of conflict cultures. *Research in Organizational Behaviour*, *28*, 137–166.

Giebels, E., & Janssen, O. (2005). Conflict stress and reduced well-being at work: The buffering effect of third-party help. *European Journal of Work and Organizational Psychology*, *14*, 137–145.

Jehn, K.A. (1992). *The impact of intragroup conflict on effectiveness: A multimethod examination of the benefits and detriments of conflict.* Unpublished Doctoral Dissertation. Northwestern University.

Jehn, K.A. (1994). Enhancing effectiveness: An investigation of advantages and disadvantages of value based intragroup conflict. *International Journal of Conflict Management*, *5*, 223–238.

Jehn, K. (1995). A multimethod examination of the benefits and detriments of intragroup conflict. *Administrative Science Quarterly*, *40*, 256–282.

Jex, S.M., & Beehr, T.A. (1991). Emerging theoretical and methodological issues in the study of work-related stress. *Research in Personnel and Human Resources Management*, *9*, 311–365.

Jex, S.M., Bliese, P.B., Buzell, S., & Primeau, J. (2001). The impact of self-efficacy on stressor-strain relations: Coping style as an explanatory mechanism. *Journal of Applied Psychology*, *86*, 401–409.

Johnson, S.J., Batey, M., & Holdsworth, L. (2009). Personality and health: The mediating role of trait emotional intelligence and work locus of control. *Personality and Individual Differences*, *47*, 470–475.

Jones, F., & Bright, J. (2001). *Stress, myth, theory and research.* Harlow, England: Pearson Education.

Katz, D., & Kahn, R. L. (1978). *The social psychology of organizations*. Oxford, England: Wiley.

Koeske, G.F., Kirk, S.A., & Koeske, R.D. (1993). Coping with job stress: Which strategies work best? *Journal of Occupational and Organizational Psychology*, 66, 319–335.

Lachman, M.E., & Weaver, S.L. (1998). The sense of control as a moderator of social class differences in health and well-being. *Journal of Personality and Social Psychology*, 74, 763–773.

Latack, J.C. (1986). Coping with job stress: Measures and future directions for scale development. *Journal of Applied Psychology*, 71, 377–385.

Legerski, E.M., Cornwall, M., & O' Neil, B. (2006). Changing locus of control: Steelworkers adjusting to forced unemployment. *Social Forces*, 84, 1521–1537.

León-Pérez, J.M., Ramírez-Marín, J.Y., & Medina, F.J. (2009). *Interpersonal conflict as job stressor: Conflict management in different organizational settings*. Paper presented at the 2009 conference of the International Association of Conflict Management (IACM), Kyoto, Japan.

Meichenbaum, D., & Jaremko, M.E. (1983). *Stress reduction and prevention*. New York: Plenum Press.

Melchior, M., Berkman, L.F., Niedhammer, I., Chea, M., & Goldberg, M. (2003). Social relations and self-reported health: A prospective analysis of the French Gazel cohort. *Social Science & Medicine*, 56, 1817–1830.

Mohammed, S., Klimoski, R., & Rentsch, J.R. (2000). The measurement of team mental models: We have no shared schema. *Organizational Research Methods*, 3, 123–165.

Muhonen, T., & Torkelson, E. (2004). Work locus of control and its relationship to health and job satisfaction from a gender perspective. *Stress and Health*, 20, 21–28.

Muller, D., Judd, C.M., & Yzerbyt, V.Y. (2005). When moderation is mediated and meditation is moderated. *Journal of Personality and Social Psychology*, 89, 852–863.

Newton, T.J., & Keenan, A. (1985). Coping with work-related stress. *Human Relations*, 38, 107–126.

Parkes, K.R. (1989). Personal control in an occupational context. In A. Steptoe & A. Appels (Eds.), *Stress, personal control and health* (pp. 21–47). Chichester: Wiley.

Parkes, K.R. (1991). Locus of control as moderator: An explanation for additive versus interactive findings in the demand – discretion model of work stress? *British Journal of Psychology*, 82, 291–312.

Pearson, W.A., Ensley, M.D., & Amason, A.C. (2002). An assessment and refinement of Jehn's Intragroup Conflict Scale. *The International Journal of Conflict Management*, 13, 110–126.

Phares, J.E. (2001). Locus of control. In W.E. Craighead & C.B. Nemeroff (Eds.), *The Corsini encyclopedia of psychology and behavioural science, Vol. 2* (3rd ed., pp. 889–891). San Francisco: John Wiley.

Pruitt, D.G. (1998). Social conflict. In D.T. Gilbert & S.T. Fiske (Eds.), *The handbook of social psychology, Vol. 2* (4th ed., pp. 470–503). New York: McGraw-Hill.

Quick, J.C., Quick, J.D., Nelson, D.L., & Hurrell, J.J., Jr (1997). *Preventive stress management in organizations*. Washington, DC: American Psychological Association.

Rotter, J.B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs*, 80, 1–28.

Rubin, J.Z., Pruitt, D.G., & Kim, S.H. (1994). *Social conflict: Escalation, stalemate, and settlement* (2nd ed.). New York: McGraw-Hill.

Scott, W.R. (2003). *Organizations: Rational, natural and open systems*. Upper Saddle River, NJ: Prentice Hall.

Shapiro, D.H., Jr., Schwarz, C.E., & Astin, J.A. (1996). Controlling ourselves, controlling our world: Psychology's role in understanding positive and negative consequences of seeking and gaining control. *American Psychologist*, 51, 1213–1230.

Shulz, W. (1995). Multiple discrepancies-theory versus resource theory. *Social Indicators Research*, 34, 153–169.

Simons, T.L., & Peterson, R.S. (2000). Task conflicts and relationship conflict in top management teams: The pivotal role of trust. *Journal of Applied Psychology, 85*, 102–111.

Spector, P.E., Chen, P.Y., & O'Connell, B.J. (2000). A longitudinal study of relations between job stressors and job strains while controlling for prior negative affectivity and strains. *Journal of Applied Psychology, 85*, 211–218.

Thomas, K.W. (1992). Conflict and negotiation processes in organizations. In M.D. Dunnette & L.M. Hough (Eds.), *Handbook of industrial and organizational psychology, Vol. 3* (2nd ed., pp. 651–717). Palo Alto, CA: Consulting Psychologists.

Van de Vliert, E., & Euwema, M.C. (1994). Agreeableness and activeness as components of conflict behaviours. *Journal of Personality and Social Psychology, 66*, 674–687.

Wright, T.A., & Cropanzano, R. (2000). Psychological well-being and job satisfaction as predictors of job performance. *Journal of Occupational Health Psychology, 5*, 84–94.