

# **The role of Job Embeddedness for return-to-work in the contact of employees on sick-leave with employers (Working paper, 2016)**

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## **Introduction**

### *Background*

In sociological theory social capital is an important concept and is strongly related to the concepts of social groups, social cohesion and conflict. According to Bourdieu (1986:249) social capital is the product of a determined and never ceasing strategy of social investment in social relations that are useful in the short or long term, either in a conscious or unconscious way (Decoster,2001:4). Despite the many different dimensions in this concept there is a general agreement that social capital reflects the accumulated historical, cultural, and social factors that give rise to (formal and informal) networks, shared norms, values, beliefs, mutual reciprocity, and collective action (Van Scheppingen et al, 2013:371).

The theoretical model of Job Embeddedness (JE) is a fine elaboration of the more abstract concept of social capital and distinguish two components of job embeddedness. One is the 'on-the-job' factor and measures the extent to which an employee is embedded in the organization and his work. The other is the 'off-the-job' factor which measures the degree of embeddedness in the community where one lives (Lee et al, 2004:711). Each component has three dimensions: Link, Fit and Sacrifice. The first is the extent to which an employee has 'links' to other people or activities; the second is the extent to which his job and community 'fits' other aspects in his 'life-spaces'; and the third is the ease with which individuals are able to relinquish the existing fringe benefits, the so-called 'sacrifices' (Lee, et al, 2004:712)

If the concept of Employee Embeddedness will be proved to be related with the origins of the conflict and the request for a second opinion, it may have some major implications for the daily practice around this subject. One can imagine that, in that case, the professionals of the UWV - especially the vocational expert – are willing to obtain more information about the degree of embeddedness of the employee on organization level and in daily life.

### *Importance of contact between employer and employee for return to work*

There is evidence that contact between employer and the employee with sick leave correlates with the chance at return to work (RTW). Nieuwenhuijsen et al. (2004: 817) found in their longitudinal study under supervisors that their communication (frequency) is a predictive factor for the chance at return to work by their ill employees (2004: 817). Maybe explainable by the assumption that the employee experiences it as social support (2004: 822). In their cross-country survey Anema et al. (2009: discussion) the authors found that differences in the Return-to-Work (RTW) rates can be ascribed to differences in various forms of contact of the employee with the employer about applied work interventions like workplace adaption, job redesign, working hours adaptation, therapeutic work resumption, job training and sheltered workshop.

From the social capital perspective (Scholte et al, 2015a) this contact between supervisor and employee is an good example of the meaningfulness of the potential power of social capital and more specific of positive vertical dimensions of social capital (Van Scheppingen et al., 2013:371) as mentioned in our theoretical article.

#### *Dispute or conflict about sick leave*

The goal in our earlier theoretical study (Scholte 2015a) was to find a sociological explanation for the fact that some of the employees in the same situation, namely their sick leave, whether or not come into conflict with the employer about their sickness absence and want to make a request for a second opinion by the Dutch national Social Security Association. An important condition for the SSA to take up the request is that employer and employee really are having a dispute about this sick leave. What causes that the employee decides to call in a third party?

Aubert raised a similar question and wondered why clients do go to court (Aubert, 2010: 43), because he was convinced that 'where the stakes are overwhelmingly on his (*i.e. client's*, Authors ) side, it cannot normally be in the interests of both (*i.e. accuser/client and defendant*, Authors) to have a judicial tribunal deal with the case'. He supposed that it was because the applicant overestimated his chance of winning (Aubert, 2010: 44). For Aubert, this was probably explainable by the idea that the applicant is better acquainted with his own favoring arguments than those favoring the other party (Aubert, 2010: 44). From the perspective of social capital this can be seen as a example of a vertical relationship, as mentioned above (Van Scheppingen et al., 2013:371), that is weakly developed. Both parties are apparently not capable to argue in a positive, constructive way. However the second opinion is not a legal instrument and the outcome can be neglected we see some parallels with the discussion above. In our theoretical article (Scholte et al; (2015a: ) we mentioned that the results of earlier research, carried out by the insurance physicians and the Dutch Foundation 'de Ombudsman' (2011:41), showed that after a second opinion many employees did not return to their job or quit working for their employer altogether. So the price is quiet high for these employees.

Beside the sociological explanations mentioned above, also social psychological ones may contribute to the fact that some people are more inclined to follow a legal, juridical route than others. People may have different attitudes towards opposite meanings, dispute and possible conflicts: differences in personality tendency, in terms of avoiding a conflict, or to start a dispute and enter into a possible conflict (Kilmann and Thomas, 1977).

#### *Dutch situation*

In our theoretical study (Scholte et al 2015a) we have depicted the possible factors in the employee's background, which may shed some light at the origins of the dispute of the employee with his employer about his sick leave and his considerations to make a request for a second opinion. For that reason, it is relevant to spent some words on the Dutch system of sick leave of an employee in relation to the opportunity to ask for a second opinion.

With the introduction of the Dutch Work and Income (Capacity for Work) Act (in Dutch: WIA) a major change took place in the Act on Sick Leave (in Dutch: ZW) in 2004. Since that time, the employer was

responsible for paying salary until a maximum of two years. In these two years employer as well as employee are both responsible for the reintegration of the sick employee, advised by a occupational physician, who is an employee of the company or is hired by the company. In these years UWV – the Dutch national Social Security Association - is standing aside of this process of rehabilitation. Only at the end of these two years UWV comes into action when the employee is still ill and files a claim with UWV for a benefit according to the WIA. But there are some exceptions. If the employer and employee disagree about the illness of the employee as a valid reason for his absence from work during the first two years, the employer and the employee both have the possibility to make a request for a second opinion by an insurance physician and/or by a vocational expert of UWV. According to the Dutch Code of Civil Law, an employee runs the risk of getting a reduction in salary or even being fired on the ground of being unrightfully absent at work. The Dutch parliament wanted to protect the employee because of his weak position in this dispute. Therefore, it was laid down in the law that the employee has the right to ask for a second opinion by the professionals of UWV.

### *Goal, research questions, and hypotheses*

In an earlier article (Scholte et al 2015b) we investigated with a first order measurement model the measures for on-the-job embeddedness and off-the-job embeddedness. In addition, in that article (Scholte 2015b) we investigated with a second order measurement model if on-the-job embeddedness and off-the-job embeddedness was loaded by a higher theoretical concept, employee-embeddedness (Scholte 2015a). Indeed, we found in a good fitting second order measurement model, employee-embeddedness could be a central theoretical concept behind on-the-job embeddedness and off-the-job Embeddedness. Unfortunately, these findings were only valid under certain constraints, which had to be implemented because of technical, statistical reasons. Thus, the results of that study (Scholte 2015b) had a limited value concerning the concept of employee-embeddedness. For that reason, we focus us in this study further on on-the-job embeddedness and off-the-job embeddedness , and not on employee-embeddedness.

Our goal is to investigate the role of on-the-job embeddedness and off-the-job embeddedness concerning the conflict, the contact between employer and employee, and RTW of employees at sick leave who are in a dispute or conflict. Our research is partly explorative and partly hypotheses testing. On basis of this goal we formulated the following research questions :

What is the relation of on-the-job embeddedness and off-the-job embeddedness with the attitude of employees with sick leave concerning a dispute or conflict? Has on-the-job embeddedness and off-the-job Embeddedness mitigating role in this attitude?

What is the relation of on-the-job embeddedness and off-the-job embeddedness concerning the contact of the employer with the employee and vice versa, and for RTW? Has on-the-job embeddedness and off-the-job Embeddedness a stimulating role, directly and/or indirectly on RTW?

How does the employees with sick-leave who asked for a second opinion, differ in these mentioned relations from employees with sick-leave who did'n asked for a second opinion, taking possible differences of background variables into account?

Herewith, our hypotheses are:

- there are positive associations of on-the-job embeddedness and off-the-job Embeddedness with the two forms of contact and with RTW;
- the two forms of contact between employer and employee have, in turn, positive associations with RTW
- on average, the group of employees with sick-leave who asked for a second opinion scores lower on on-the-job embeddedness and off-the-job embeddedness, have a higher 'conflict minded' attitude, have less contact with the employer, and their RTW is less than the group of employees with sick-leave who did not ask for a second opinion.

## **Method**

### **Design, procedure and representativeness**

We will treat study design and procedure shortly, because it was reported elsewhere more extensively (Scholte et al 2015b).

The study design was a cross section, non-matched case-control survey study. Cases were employees who applied for a second opinion. On average, second opinions were asked at 307 days (about 44 weeks) after the first day of sick leave. Controls were employees who were 294 days (42 weeks) with sick leave and who haven't applied for a second opinion.

In August 2012, we got from the SSA names, addresses, date of birth and sex of employees of whom the files of their second opinion request were closed in the months May 2012 up to July 2012 (three months). From the 1277 cases, 127 cases were excluded leaving 1150 cases included. These included cases were sent an introduction letter and of an added questionnaire at the end of August 2012. Anonymity was emphasized in the letter. After about three weeks (mid of September 2012), a recall letter was sent to all included persons. The last questionnaires were received at the end of September 2012, i.e. which is about six months from the first second opinion request in our research population. This length is acceptable with regard to recall bias (Middel et al 2006) concerning a salient event (Garon 2013), such as a second opinion. The response was 326 cases (28,3%), of which 20 cases were excluded for various reasons, which resulted in 306 cases for the case group.

Because we wanted the control group being larger as the case group and expected the same response for the control group as the case group (about 30%), in November 2012 we sampled 1500 persons from 5615 employees who were reported as with 42 weeks with sick leave in October 2012 and who lived in the Netherlands. This sample of employees got nearly the same letter with nearly the same kind of questionnaire as the case group at the beginning of December 2012. A recall letter was sent after three weeks. The response was 639 cases (42,6%) of which 53 cases were excluded for various reasons, leaving 586 cases included for the control group, sufficiently for a non-matched case-control study (Rose, Van der Laan, 2009).

All letters and the two questionnaires were piloted for clarity and comprehensibility by seven persons who were members of the official clients council of the SSA.

We compared age and gender of the response group with those of the population under study for the case group and control group separately. Age and gender were the only variables for which this comparison was possible in this study. For the case group and for the control group, respectively (see Table 1) the response group was some older than the population under study. The percentage of women was nearly the same for response group and for the population under study, in the case group, as well in the control group, respectively.

**Table 1** Age and gender of the population under study and of the response group, for the case group and the control group, respectively

	Case group Age, years mean (median; sd)	Case group Gender, female (%)	Control group Age, years mean (median; sd)	Control group Gender, female (%)
Population under study	43.9 (44.0; 10.7) (n=1150)	52.1% (n=1150)	47.1 (48.0; 10.6) (n=1500)	59.7% (n=1500)
Response group	46.5 (48.0; 10.3) (n = 306)	51.6% (n = 306)	49.9 (52.0; 9.8) (n= 586)	58.5% (n= 586)

### Content of blocks of questions in the questionnaires

The questionnaire of the case group consisted of fourteen blocks of questions and that for the control group of thirteen blocks of questions, of which twelve blocks were the same as for the case group. A block of questions about the sick leave differed slightly between the case group and control group.

The kernel of the questionnaire consisted of three blocks of questions for On-the-Job (Link, Fit, Sacrifice) and three blocks of questions for Off-the-Job (Link, Fit, Sacrifice). These questions were mainly derived from items and questions in previously applied and validated questionnaires (Gründemann et al 1991; Mitchell et al 2001a; Mitchell et al 2001b; Lee et al 2004; Vendrig 2005; Holtom et al 2006; Felps et al 2009; Hooftman et al 2010). The questions for On-the-job factors and Off-the-Job factors were reported in Scholte et al (2015b).

Another block of questions was about the attitude of the respondents concerning their personal styles in case of a conflict. The questions were in the form of propositions with which one could agree or disagree. These propositions were based on a instrument developed by Thomas and Killman (1977). These authors derived five conflict styles from two dimensions: assertiveness: “the extent to which the person attempts to satisfy his own concerns”, and cooperativeness: “the extent to which the person attempts to satisfy the other person's concerns” (Thomas, Killman 2008). The five conflict styles are: competing (assertive and uncooperative), accommodating (unassertive and cooperative), avoiding (unassertive and uncooperative), collaborating (assertive and cooperative), compromising (moderate in both assertiveness and cooperativeness)

The other six blocks of questions in the questionnaire were derived from existing questionnaires (Gründemann et al. 1991, Vendrig 2005, Hooftman et al. 2010), which we considered as possible relevant for our study. These questions were about 1) demographic variables (e.g. age, gender and born in the Netherlands) , 2) the job in which the sick leave started (e.g. the number of years working in the job, number of hours working, irregular work, industrial sector, necessary level of education for the job, number of employees in company/plant), 3) the sick leave (e.g. date of starting sick leave, kind of complaints, the duration of the complaints before the sick leave, contact during sick leave at initiative by the employer, and idem by the employee), 4) opinions about the sick leave and/or (non-)recovery (e.g. of the occupational physician and of the employer, the existence of a dispute, 5) former important changes in the work (e.g. kind of organizational changes, work aspects which changed, economic capacity occupancy of the organization), and the situation in the relevant part of the labour market (e.g. demand for same kind of work, expectation concerning the possible necessity to move to another region, expectation concerning a change in travelling time), 6) the

actual work situation (e.g. being at work now, at work at the same or at another employer, adaptation of actual work to one's functional capacity).

### **Construction and selection of variables and the estimation of structural models**

We explain shortly how the construction and selection of variables and the estimation of the structural models took place. In Appendix 1 we do this more extensively.

We imputed missings on logical grounds, or by mean substitution or by means of the estimates of the variable on basis of regression models with relevant variables of the same block together with demographic variables. We inspected variables before and after the imputation for the case group and control group separately.

We performed factor analyses on the answers of all respondents – case group and control group - for each of the six blocks of questions about On-the-Job and Off-the-Job separately (i.e. for Link, Fit and Sacrifice, respectively). We analyzed factor scores in a measurement model as loadings of two postulated theoretical latent variables: On-the-job and Off-the-Job, about which we reported extensively elsewhere (Scholte et al. 2015b). In this study, we used the factor scores of these two latent variables, On-the-job and Off-the-Job.

Also, we performed factor analysis on the answers of all respondents on the questions about the conflict styles. We concluded to four dimensions which were well interpretable. With the variables of the four dimensions we performed reliability analyses and calculated additive scale. The resulting four styles in case of a possible conflict were: 1) avoiding stress, 2) persevering for one's own interest, 3) playing a waiting game, and 4) going for a common interest and solution.

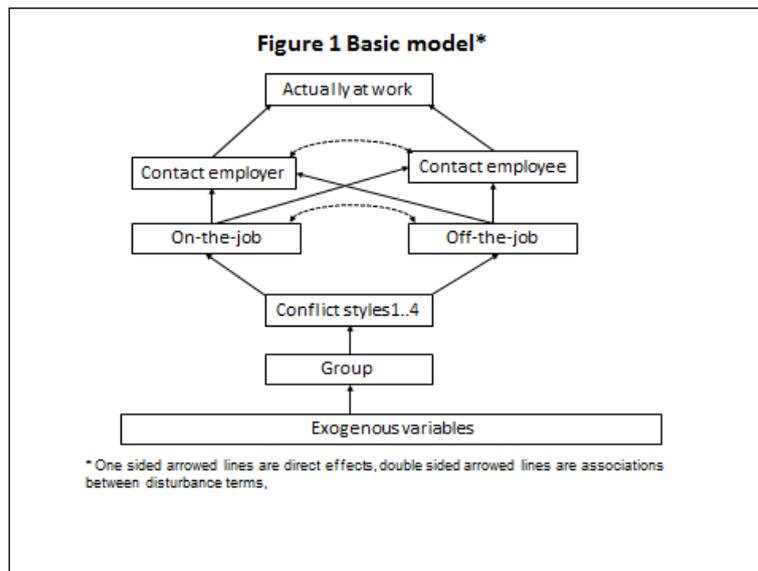
We sampled 50% of the respondents of the case group and the controls, respectively, in order to do a cross validation. This resulted in a file of 447 respondents, 155 of the case group and 292 of the control group.

The variables from the block of questions concerning the opinions of the respondents about the sick leave and/or (non-)recovery were not selected, because of the contamination with the variable (case- or control) group.

We divided variables in exogenous and endogenous variables, mainly on basis of our theoretical model, about which we reported elsewhere (Scholte 2015a). The following 10 variables were considered as endogenous: case/control group, the four conflict styles, On-the-job, Off-the-Job, and contact during sick leave at initiative by the employer and that by the employee, respectively, and the actual work situation. All other 34 variables were considered as exogenous variables.

Because 34 exogenous variables together with 10 endogenous variables gives more parameters in a structural model than the number of 447 observations, we selected possible confounding exogenous variables. An exogenous variable was considered as possible confounding if it had a significant ( $p < 0.05$ ) or weakly significant ( $0.05 < p < 0.10$ ) bivariate relation with the variable for the case- of control group.

Next, with our theoretical model (Scholte 2015a) as global starting point, we analyzed a basic model with the associations as depicted in Figure 1: lines with arrows in one direction indicate a direct effect of exogenous or endogenous variables on other endogenous variables. Associations of disturbance terms (i.e. unexplained variances) between endogenous variables, are indicated in Figure 1 by a line with an arrow in double direction.



From the basic model we selected significant coefficients, then, the final model was fitted. The basic and final structural relations model were analyzed with Lisrel-8.72 (Jöreskog & Sörbom, 2004). We inspected the model fit for the structural model (Hooper et al. 2008).

### Cross validation

For the cross validation we used the second sample of 445 respondents: 151 of the case group and 294 of the control group. We started the cross validation with the structure of fitted measurement model from the first sample (Scholte et al 2015b) and fitted this measurement model to a final measurement model for the second sample. The results of this final measurement model were used in a structural relations model according to the structure of the final structural relations model of the first sample. Again, we fitted this structural relations model of the second sample into a final model of the second sample.

The estimated parameters of the final measurement models and those of the final structural relations models, respectively, of the first and second sample were compared if they had the same direction, with the parameters of the final measurement model and the final structural relations model of the first sample as basis. We used for this comparison globally two categories:

- confirmed: parameter of second sample has same direction and (more or less) significance as in first sample;
- not confirmed: result is quite different in of second sample compared to first sample.

## Results

### *Characteristics of case and control group in the analyses*

In Table 2 the exogenous and the endogenous variables in our analyses are shown for the case group (N=155) and the control group (N=292), and the significance of their difference. The respondents in the control group were older, consisted of more females, were more born in the Netherlands. Also, the control group had a longer job tenure, worked more in commercial business, health care and welfare sector and less in the sector with 'other' business, worked in larger companies and had some less travel time.

**Table 2** Characteristics of response group: case group and control group (N=447)

Exogenous variables	Case group (1) N=155 mean (sd) or %	Control group (2) N=292 mean (sd) or %	Significance (P)	Variable type (in Lisrel)
Age (scale 20-64 years; += more)	45.21 (10.431)	49.65 (9.648)	P<0.000	Continuous
Gender (+ = female) (%)	51.0%	62.0%	P=0.025	Nominal
Couborn (+ = not born in NL) (%)	16.8%	9.9%	P=0.036	Nominal
Jtleng (scale 1-8; += longer)	3.91 (1.509)	4.50 (1.468)	P<.000	Ordinal
Sector4 (+=yes) (%)	3.2%	8.6%	P=0.032	Nominal
Sector6 (+=yes) (%)	16.8%	29.8%	P=0.003	Nominal
Sector8 (+=yes) (%)	28.4%	19.2%	P=0.026	Nominal
Numbempl, (scale 1-4; +=more)	3.61 (1.564)	4.44 (1.662)	P<0.000	Ordinal
Travtim, scale (scale 1-5; +=more)	2.92( 1.31)	2.71 (1.291)	P=0.094	Ordinal
Psychco (+=yes) (%)	57.4%	30.5%	P<0.000	Nominal
Neuroco (+=yes) (%)	12.3%	21.2%	P=0.019	Nominal
Labconfl (+=yes) (%)	29.0%	1.4%	P<0.000	Nominal
Workrela (+=yes) (%)	23.9%	7.2%	P<0.000	Nominal
Othcom (+= yes) (%)	12.3%	28.4%	P<0.000	Nominal
Numcom, (scale 0-5; +=more)	1.98 (1.060)	1.47 (0.770)	P<0.000	Ordinal
Durcomp, (scale 1-4; +=longer)	2.66 (1.198)	2.44 (1.284)	P=0.084	Ordinal
Labdem, (scale 1-3; -=more)	2.14 (0.760)	1.88 (0.793)	P=0.001	Ordinal
Ctravtim, (scale 1-5; +=more)	3.37 (1.088)	3.61 (1.048)	P=0.028	Ordinal
<b>Endogenous variables</b>				
Conflst1 (scale 23-40; -=more agree)	28.15 (3.293)	28.27 (3.459)	P=0.732	Ordinal
Conflst2 (scale 13-26; -=more agree)	17.60 (3.003)	17.39 (2.935)	P=0.476	Ordinal
Conflst3 (scale 6-12; -=more agree)	10.25 (1.403)	10.38 (1.299)	P=0.333	Ordinal
Conflst4 (scale 14-26; -=more agree)	17.99 (2.282)	17.63 (2.284)	P=0.116	Ordinal
Onjob (scale -4.936 to 1.484; +=more)	-1.453 (1.064)	-0.844 (0.943)	P<0.000	Continuous
Offjob (scale -4.084 to 1.754; +=more)	-0.619 (1.029)	-0.298 (0.969)	P=0.001	Continuous
Contcomp (+ = sufficient) (%)	22.6%	71.6%	P<0.000	Nominal
Contempl (- = regular) (%)	71.0%	34.9%	P<0.000	Nominal
Actwork, (+= yes) (%)	24.5%	62.7%	P<0.000	Nominal

#### **Exogenous variables:**

Age= age in years at 2012 ; Gender = Gender of respondent Couborn= country born;  
 Jtleng= job tenure length ; Sector4= commercial business ; sector 6= Health Care and Welfare ;  
 Sector 8 = 'other' business ; Numbempl= number of employees at the plant/ company ;  
 Travtim= travelling time between work and home ; Psychco= psychic complaint as cause of sick leave ;  
 Neuroco= neurologic complaint as cause of sick leave ; Labconfl= labour conflict as cause of sick leave ;  
 Workrela= work related complaint as cause of the sick leave; Othcom = 'other' complaint as cause of sick leave ;  
 Numcom= number of complaints as causes of the sick-leave; Durcom= the duration of the same complaints before sick-leave;  
 Labdem= labour market demand for same skills/ profession ; Ctravtim = change in travelling time after job change.

**Endogenous variables:** Group= case/control group; Conflst1= avoiding stress; Conflst2= persevering for one's own interest; Conflst3= playing a waiting game; Conflst4= going for common interest and solution; Onjob= on-the-job embeddedness; Offjob= off-the-job embeddedness; Contcomp = contact from employer with employee during sick-leave; Contempl = contact from employee with company during sick-leave; Actwork= actually at work.

Further, the control group had less psychic, more neurologic complaints, less labour conflict and work related complaints, and more 'other' complaints work related complaints as causes of their

disease. The control group had a lower number of complaints and their complaints arised some shorter in time before the sick-leave than those of the case group. The control group estimated the labour demand for their job as higher than that of the case group, and in case of another job, the control group estimated that the change in travel time would become longer than that of the case group.

Concerning the endogenous variables, there were no significant differences in conflict styles between case group and control group. The greatest difference was that with the conflict style 'going for common interest and solution'; the control group agreed some more with this conflict style. The control group was more on-the-job and off-the-job embedded, perceived the contact at initiative of the employer during the sick-leave more as sufficient, took less regular initiative by themselves to contact the company, and were more actually at work.

#### *Results of the linear structural relations in the basic model*

In the Appendix 2 a full description including tables with the coefficients are given for the basic model and the final model.

In Table 3 (see Appendix 2) the direct effects of the exogenous variables on the endogenous variable Group (case group=1; control group = 2) in the basic model are shown. Of the 18 direct effects, only seven were significant at the 95%-confidence level and three at the 90%- confidence level; eight direct effects were not significant ( $P>0.10$ ).

In Table 4 (see Appendix 2) the direct effects between the endogenous variables in the basic model are shown. Direct effects on the first three conflict styles (see Table 4 in the Appendix 2) were not significant. Also, the direct effect of the third conflict style on on-the-job embedded, and the direct effects of off-the-job embedded on the labour market demand for same skills/profession and on change in travelling time after job change, were not significant. The other presupposed direct effects were significant or weak significant. However, the model fit parameters indicated that the basic model did not have a good fit (see Table 4 in Appendix 2). Furthermore, modification indices showed that coefficients that important improvements were possible.

#### *Results of the final model: direct effects between exogenous and endogenous variables*

In Table 5 (see Appendix 2) the associations between the exogenous and the endogenous variables are shown. Two exogenous variables which were in the basic model were not included in the final model, because various reasons: "other" complaint as cause of the sick-leave and number of complaints as causes of the sick-leave.

Elder employees were some more represented in the control group, were some more off-the-job embedded. Also, elder employees had less contact with the company during sickness-leave at own initiative and were some less frequently at work. With regard to gender, women were more represented in the control group and agreed more with the conflict style 'going for common interest and solution. In the control group we found also more employees who were born in the Netherlands.

If people were not born in the Netherlands they agreed more with the conflict style 'playing a waiting game'. Also, employees who were not born in the Netherlands were less off-the-job embedded.

In the control group more employees had a longer job tenure and employees with a longer job tenures were more on-the-job embedded. Some more employees in the control group were working in the commercial business. Employees in the health care and welfare sector experienced more that the employer kept contact during their sickness absence sufficiently. Employees in 'other' business agreed some less with the conflict styles 'persevering for one's own interest' and with 'going for common interest and solution'. In 'other' business the employees had more contact at own initiative with the company. Employees from companies with a greater number of employees were more represented in the control group. If the company had a greater number of employees, more sick-leaved employees agreed less with the conflict styles 'avoiding stress', and agreed some more with the conflict style 'persevering for one's own interest', and less with the conflict style 'playing a waiting game'. Employees with more travel time were less off-job-embedded.

Employees with psychic complaints as cause of sickness absence were more represented in the case group and agreed less with conflict style 'persevering for one's own interest'. Employees with psychic complaints are less on-job-embedded, as well less off-job-embedded. Employees with neurologic complaints experienced some more that their employer had sufficient contact with them during sickness absence. Employees with a labour conflict as cause of the disease were more represented in the case group. Employees with a labour conflict agreed more with the conflict style 'persevering for one's own interest'. Employees who's cause of the sickness absence was work related were more represented in the case group, and were more at work. Employees who's complaints already existed longer before sick-leave agreed some more with the conflict style 'avoiding stress'.

Employees who estimated the demand at the labour market for their job as low were more represented in the case group. Employees who estimated that the travelling time between work and home would be longer in case of a job change, were more in the control group and more on-the-job embedded.

#### *Results of the final model: direct effects between endogenous variables*

For the direct effects between endogenous variables (see Table 6 in the Appendix 2, the not-Italic coefficients ) we found the following results. In the control group employees were more on-the-job embedded and were some more off-the-job embedded. Employees of the control group experienced strongly more that the employer was keeping sufficient contact with them during sick-leave. It also appeared that the employees in the control group took strongly less initiative to have contact with their company. Employees in the control group appeared to be strongly more at work during their sickness absence.

Employees who disagreed more with the conflict style 'playing a waiting game' took less frequently initiative to have contact with the company.

The employees who were more on-the-job embedded appeared more to agree with the conflict style 'going for a common interest and solution'. Also, they experienced more frequently that the employer had sufficient contact with them. These employees themselves kept less frequently

contact at own initiative with the company . The more 'off-the-job embedded' employees appeared to agree more with the conflict style 'avoiding stress', and to agree more with conflict styles 'persevering for one's own interest and' and 'going for common interest and solution'.

The employees who experienced that the employer had sufficiently contact with them during their sickness absence were more actually at work. The employees who kept less contact with the company during sickness absence at own initiative were actually more at work.

#### *Results of the final model: associations between disturbance terms of endogenous variables*

We found some associations between disturbance terms of endogenous variables (see Table 6 in the Appendix 2, the Italic coefficients), making the structural model non-recursive (Jöreskog & Sörbom 2001).

Between the four conflict styles we found significant associations, of which two negative ones: between 'avoiding stress' and 'playing a waiting game', on the one hand, and, at the other hand, 'persevering for one's own interest' . Between the disturbance terms of on-the-job embedded and off-the-job embedded was a positive association. Sufficient contact from employer with employee during sick-leave was associated with less contact from employee with company during sick-leave.

Furthermore, we found in the final model negative associations of the disturbance terms of three variables with the disturbance term of the variable Group, while this last variable had also significant positive direct effects on these three variables. The employees who experienced the contact from the employer as sufficient and those who kept less contact with the company during sickness absence at own initiative and those who were actually at work were more associated with the case group.

Model-fit-parameters (see last row of Table 6 in Appendix 2) and residuals (Q-plot, not shown here) showed that the final model had a very good fit.

#### *Results of the cross validation*

In Appendix 3 the results are given for the cross validation of the measurement model. Of the fifteen parameters of the measurement model for the first sample, three parameters were not confirmed, and twelve were (more or less) confirmed.

In Appendix 4 the results are given for the cross validation of the structural relations model. For the exogenous variables in the structural relations model:

- 17 parameters of second sample had the same direction as in first sample.
- 18 parameters of second sample were zero, but not in first sample.
- 22 parameter were zero in first sample but not in second sample

Overall: of the 35 parameters of first sample, 17 (49%) were confirmed, and 18 not (51%).

For the endogenous variables in this model:

- 19 parameters of the second sample had the same direction as in first sample;
- 6 parameters of the second sample were zero, but not in first sample;
- 7 parameters of first sample were zero but not in second sample.

Overall: of the 25 parameters of first sample, 19 (76%) were confirmed, and 6 not (24%).



was related with being actually not-at-work. Thus, indirectly via these variables, having more on-the-job embeddedness was positively related with being actually at work.

Taking possible differences of background variables into account, compared to employees who did not ask for a second opinion the employees who did were less on-the-job embedded and some less off-the-job embedded. These last mentioned employees experienced less that the employer was keeping sufficient contact with them during sick-leave and took more initiative to have contact with their company, but were less at work. Employees who asked for a second opinion scored not significantly different on the conflict styles than the employees who did not.

Concerning the cross validation, the relations of the exogenous with the endogenous variables were quite different in second sample compared to those of first sample. However, given these differences, most of the relations of the endogenous variables were quite similar in second sample compared to those of first sample. Most important, the relation between on-the-job embeddedness and off-the-job embeddedness was confirmed and also, the relations between case/control group, on the one side, and on-the-job embeddedness, off-the-job embeddedness, contact from employer with employee during sick-leave, contact from employee with company during sick-leave and being actually at work, at the other side.

#### *Interpretation of some important results (first sample)*

On contrary as we expected, the sick employees who asked for a second opinion were not more inclined in their attitude to start a dispute or conflict than the sick employees of the control group (all things being equal). To our opinion this fact strengthens the role of the specific situation in which this employee is at the company in relation with the employer, when this employee asks for a second opinion.

As we expected, the employees of the case group scored lower on on-the-job and off-the-job embeddedness than the control group. The question is 1) whether there is another common cause for this lower scores and for asking for a second opinion, 2) whether these lower scores is the result of the situation in which the sick employee asks for a second opinion, or 3) whether these lower scores are the result of asking for a second opinion, as we have modeled in our final model? Because of the transversal design and the ex post character of our data, it is not possible to give an ultimate answer. Nevertheless, because of the structural character of our questions for on-the-job and of-the-job embeddedness (Scholte et al 2016-b), and because of the absent of indications in the analyses for direct effects from on-the-job and of-the-job embeddedness on the variable 'Group', we think that the first mentioned explanation is the most plausible.

As we expected more on-the-job embeddedness was related with more contact by the employer, but contrary as we expected, with less contact with the company on initiative of the employee. We think that this last mentioned relation is a selection effect, because of the negative association between the two contact variables: sick employees who consider the contact by the employer as sufficient, have no reason to contact the company on their own initiative. Furthermore, also the relation of regular contact with the company on initiative of the employee and being not-at-work in

combination with the relation of sufficient contact by the employer with being at work, indicates to our opinion this selection effect.

Contrary to what we expected, we did not find a relation of off-the-job embeddedness with the two contact variables. A possible reason for this fact may be that in the Netherlands off-the-job factors are less important than, for example, in the United States, because the Netherlands cover only a small area.

At last, the relation of belonging to the case group and being actually not-at-work together with a positive association between the disturbance terms of both variables, indicates to our opinion on the fact that a minority of the case group is actually at work, probably – given the positive association with having sufficient contact by the employer – because of this contact by the employer.

#### *The reinforcing role of good horizontal en vertical relationships*

In our first article (Scholte et, 2015a) we did mention the possibility that people can vary in their degree of attachment to the social groups (at work, in their private life and in the community) in which they participate. The degree of attachment one can compare with our measure of embeddedness. So the degree of attachment 'at work' can be different from the degree of attachment in private life. But together they are like a web of different types of connections and may be seen as the social capital of the individual employee. The 'amount' of social capital helps people to support each other and this behaviour is referred to as 'civic virtue' (Putnam, 2000:20-25). In Putnam's eyes, 'civic virtue' is most powerful when it is embedded in a dense network of reciprocal social relations' (2000:19). But it can be more complicated: Van Scheppingen and others (2013: 371) refer to the distinction between the horizontal and vertical dimensions of social capital (Oksanen et al,2010). The horizontal aspect is represented by the social support and relationships of trust and reciprocity between individuals who are at the same level like colleagues and friends, whereas vertical relationships (Van Scheppingen et al., 2013:371) reflect the connectedness between people at different levels of the social hierarchy like the employer and e.g. the chairman of the sports club. So employees have besides a certain degree of attachment with the employer because of the signed contract also a work-relationship - with a certain quality - which can be seen as an example of the vertical dimension. And when the attachment with colleagues, with customers, pupils, patients and with the job content, being the horizontal dimensions, is connected with a positive vertical dimension, one can rightfully speak of a higher degree of on-the-job embeddedness of the employee because he has good vertical as well as horizontal relations. And because of these good vertical relations on the job he will be more satisfied about the frequency of the contact between him and his employer. Sufficient contact from the employer will be experienced by the employee as a sign of recognition and as a expression that the employee is being missed at work. When the employer is the one that takes the initiative, it is understandable that the urge for the employee to take the initiative for having contact with the manager will be minor. Being more job embedded in both dimensions is thus indirectly correlated with the chance of being at work and correlates with the coping style for common interest and solution. So it should be logic to find these employees more represented in the control group because they didn't make a request for a second opinion. For the employees lower embedded in both dimensions we can use the same argumentation but then in a opposite way. Maybe it is the lower degree of embeddedness on-the-job that is reflected in

weaker vertical relations within the organization. Because their employer - in their perception - does not do enough in keeping contact while he is absent at work. Maybe the employee - sensing a misjudgement of his situation and illness - is feeling some urge to take the initiative hoping to gain the recognition he deserves. Whereas the other employee is having contact with his employer maybe because he is already partially back to work. So they can meet and see each other - at a regular base - at the shop floor.

*- Findings of other researches*

Lee and others (2004:711-712) wanted in their research extend the theory about job embeddedness and demonstrate how the mayor components of job embeddedness (on- and off-the-job embeddedness) differentially predicted the decision to perform (organizational citizenship and job performance) and to participate (volitional absence and voluntary turnover) in an organization. Secondly they wanted to show how these embeddedness components might be processes through which the decisions to perform and to participate could be conceptually and empirically linked. Off- and on-the-job embeddedness significantly related to turnover, citizenship, performance, satisfaction, and commitment. Whereas off-the-job embeddedness did, on-the-job embeddedness did not relate significantly to volitional absences (2004: 716-717).

In our research we are searching for correlations between (the mayor components of) job embeddedness, sick leave and return to work whereas in the research of Lee et al. one is looking for correlations between job embeddedness or her subdimensions and leaving the organization (turnover) or reporting oneself absent (volitional, not by sickness).

We did find in our research that a greater measure of embeddedness on-and off-the-job correlates with being actually at work, while in the research of Lee et al. only of-the-job embeddedness correlates with a (lower) turnover which means that these employees are staying at work in their actual job. On-the-job embeddedness is also moderating the positive effects of volitional absences on quitting the job and is also moderating the negative effect of job performance on quitting. On-the-job embeddedness and off-the-job embeddedness have both a moderating effect on the correlation between organizational citizenship and turnover (2004:719) and on-the-job embeddedness is moderating the effect between organizational citizenship and volitional absence.

So we see there is - partially - the same correlation between job embeddedness and being at work: especially for the component of embeddedness on-the-job.

In their empirical research for reasons why employees stayed or not stayed at their work Mitchell and others (December 2001: 1116) show evidence in two separate investigations that people who are embedded in their jobs have less intent to leave and do not leave as readily as those who are not embedded . In addition, each of the six components of embeddedness (link, fit and sacrifice on-the-job and off-the-job; authors) was significantly related to turnover in at least one of the samples what suggests that their emphasis on some off-the-job and nonaffective causes of turnover has some predictive validity (Mitchell et al.; December 2001: 1116).

So all these findings have more ore less the same direction with respect to the correlation between job embeddedness and being at work, especially for the component on-the-job embeddedness. But

where in the research of Mitchell et al. there was a better correlation found between job embeddedness and turnover than other concepts like job satisfaction and perceived alternatives. In the research of Lee et al. job embeddedness appears to be a mediating factor of the correlation between two other variables e.g. it is moderating the negative effect of job performance on quitting. In our research job embeddedness correlates with sufficient contact of the employer to the employee, which on her turn correlates with being at work.

### *Strengths and weaknesses*

One of the strengths of this study is that we managed to measure the latent Job Embeddedness constructs and in relating them in a good fitting model. Furthermore, that we were able to perform a cross validation. Another is that the response to the survey was considerably higher than we had expected and that the response may be considered as representative for the population under study.

The most important weakness is the cross-sectional research design, which does not allow for the analysis of causal relationships. Furthermore, the questionnaire of respondents of the case group was sent after the completion of the second opinion. It is possible that the answers of the case group were influenced by the outcome of the second opinion. Another weakness is the large contamination of the questions in the survey concerning the opinions of the respondents about the sick leave and/or (non-) recovery with the variable 'group'. Also because of the higher (than 0.7) correlation of estimates between the parameters of variable 'group' with the variables 'contact by the employer with the employee', 'contact between company and employee on initiative of the employee' and 'actually at work', it is difficult to disentangle the relations between these variables. A last weakness relates to the fact that our final model was established on the basis of certain choices. It is theoretically possible that other choices would have resulted in a somewhat different fitted model.

### *Practical relevance*

The results seem to indicate that the chance that employees are actually at work, in the case group as well in the control group, is correlated with having sufficient contact with the employer at his initiative. Given the fact that only a quarter of the case group is still at work, what is explainable by the lower score at Embeddedness, implies that in the daily practice more attention has to be paid to the (quality of) the relationship between employer and employee.

### *Relevance for further research*

Our findings would need to be confirmed in further research. Furthermore, qualitative research under employees who asked for a second opinion could shed more light on the driving forces behind the relations we found in this study. Another topic for further research is to compare the employees who asked for a second opinion and who were at work with those who were not at work, in relation with the outcome of the second opinion.

## *Conclusion*

On basis of our analyses the employees who asked for a second opinion seemed to be less embedded on-the-job, as well some less off-the-job than a comparable control group of employees with sick leave. But employees who asked for a second opinion were not more inclined to have a dispute/conflict than these controls. Employees who asked for a second opinion were less contacted by their employer, but tried to get contact with the company on their own initiative. Nevertheless, they were much less at work than their controls.

If employees with sick leave (cases and controls) agreed more with looking for 'common interest' in case of a dispute, they were more on-the-job and off-the-job embedded. The employees who were more on-the-job embedded experienced more sufficient attention of the employer and had less often contact with the company at initiative of the employee himself. Probably due to a selection effect, we found that less initiative for contact from the employee was related with being more at work, but sufficient attention of the employer correlated positively with more being at work.

From social capital perspective we may conclude that being more embedded on- and off-the-job correlates with a preference for a coping style of common interest and solution. But despite our expectations, there was no direct correlation for this coping style and being actually at work. And that sufficient contact of the employer correlates with a higher measure of being at work. A higher measure of on-the-job embeddedness correlates with a sufficient contact of the employer which at her turn correlates with a greater chance at being at work.

## **Appendix 1: Construction and selection of variables, and analysis**

### **Missing values, imputation, and construction of variables**

We looked at missing values in the answers of the blocks under study. Most variables in the various blocks had a number of missings less than 3.5% (of the 892 cases), not systematically more or less in the case group than in the control group. In the block with the propositions about conflict styles, the percentage of missings was 2.9-7.7%. We imputed these missings on logical grounds, or by mean substitution or by means of the estimates of the variable on basis of regression models with relevant variables of the same block together with demographic variables. However, there were much more missings concerning the answers for years working in the job (138 missings, 15.5%) and for years working in the industrial sector (211 missings, 23.6%). We imputed these missings on basis of a regression model with relevant other variables concerning demographic factors and the job in which the sick leave started. We looked these variables before and after the imputation for the case group and control group separately: the mean, median and standard deviation of the variables were of the same order

In an earlier study we performed factor analyses (principal components, varimax rotation) on the answers of all respondents – case group and control group - for each of the six blocks of questions about On-the-Job and Off-the-Job separately (i.e. for Link, Fit and Sacrifice, respectively). With the resulting number of thirteen dimensions we calculated factor scores for each dimension. We recoded factor scores with a pole with “minus is more” into “plus is more”, in order to give all factor scores the same direction. We analyzed these thirteen factor scores in a measurement model as loadings of two postulated theoretical latent variables: On-the-job and Off-the-Job. Elsewhere we reported extensively about that earlier study (Scholte et al. 2015b). In this study, we used the factor scores of these two latent variables, On-the-job and Off-the-Job.

Also, we performed factor analysis (principal components, varimax rotation) on the answers of all respondents – case group and control group – on the questions about the conflict styles. The values of the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and of the Bartlett's Test of Sphericity (Bartlett) were sufficient. On basis of the number of dimensions with an eigenvalue > 1.0 and on basis of the scree, we concluded to four dimensions which were well interpretable. With the variables of the four dimensions we performed reliability analyses and calculated additive scale. Therefore, the variables with negative factors loadings were reversed, so that the plus pole of the scales indicate to more disagree with the content of the scale. The resulting four styles (and their Cronbach's alpha) in case of a possible conflict were: 1) avoiding stress (alpha: 0.749), 2) persevering for one's own interest (alpha: 0.775), 3) playing a waiting game (alpha: 0.596), and 4) going for a common interest and solution (alpha: 0.591). The Cronbach's alpha of the last two mentioned scales was just beneath 0.6, but still acceptable.

Variables from the other mentioned six blocks - demographic variables, the job in which the sick leave started, the sick leave, opinions about the sick leave and/or (non-)recovery, former important changes in the work and the situation in the relevant part of the market, and the actual work situation - were constructed on logical grounds. With exception of the continuous variables, variables were constructed on ordinal level, if possible.

Because we had enough cases, we sampled 50% of the respondents of the case group and the controls, respectively, in order to do a cross validation. This resulted in a file of 447 respondents, 155 of the case group and 292 of the control group.

All the above mentioned data manipulations and preparing analyses were performed with SPSS-20, except the estimate of the factor scores from the measurement model for On-the-job and Off-the-Job, which was conducted with Lisrel-8.72.

### **Selection of variables**

The variables from the block of questions concerning the opinions of the respondents about the sick leave and/or (non-)recovery were not selected as endogenous variables because almost 8% of the respondents from the control group reported disagreement about the sick-leave, while almost 92% of the respondents of the case group reported disagreement (with 8% missing). Because of the contamination with the variable group, we decided to leave the variable out from further analyses.

We divided variables in exogenous and endogenous variables, mainly on basis of our theoretical model, about which we reported elsewhere (Scholte 2015a). The following 10 variables were considered as endogenous: case/control group, the four conflict styles, On-the-job, Off-the-Job, and contact during sick leave at initiative by the employer and that by the employee, respectively, and the actual work situation. All other 34 variables were considered as exogenous variables.

Because 34 exogenous variables together with 10 endogenous variables gives more parameters in a structural model than the number of 447 observations, we selected possible confounding exogenous variables. An exogenous variable was considered as possible confounding if it had a significant ( $p < 0.05$ ) or weakly significant ( $0.05 < p < 0.10$ ) bivariate relation with the variable for the case-control group. For this selection we used cross-tabs (Chi-squared) for nominal and ordinal variables, and T-test (t-value) for continuous variables. By this selection, 18 exogenous variables remained for further analyses: three demographic variables (age, sex, not-born in the Netherlands), six variables concerning the job in which the sick leave started (job tenure length, commercial sector, health care and welfare sector, other business, number of colleagues at the plant or company, travelling time between work and home), seven variables concerning the sick leave (labour conflict, work related complaint, psychic complaints, neurologic complaint, "other" disease - not mentioned in the questionnaire - as cause of the sick-leave, respectively, number of complaints as causes of the sick-leave, duration of the same complaints before sick-leave), two variables with opinions about the relevant part of the labour market (labour market demand for same skills/profession; change in travelling time after a job change).

To inspect if normal scores of the ordinal and continuous variables differed from the original variables, we calculated the normal scores of these variables (with the procedure Rank) and their correlation with the original variable. All correlations were above 0.981. Therefore, we decided to use the original variables. All the above mentioned analyses were carried out using SPSS20.

### **Analysis**

With our theoretical model (Scholte 2015a) as global starting point, we analyzed a basic model. In this model direct effects of the conflict styles (Conf1 to Conf4) on the endogenous variables on-the-

job embeddedness (Onjob) and off-the-job embeddedness (Offjob) were implemented. These last two mentioned variables had direct effects on the two contact variables between the company and the employee at initiative of the employer (Concom), and at initiative of the employee (Conempl), respectively. At their turn, these contact variables had direct effects on to be actually at work (Actwork). Furthermore, in the basic model all selected exogenous variables were modeled with a direct effect on the endogenous variable case/control group (Group).

From the basic model we selected the significant estimated direct effects and associations between the disturbance terms. Then, a model was fitted by adjusting direct effects between endogenous variables and associations between disturbance terms one by one, i.e. closing non-significant parameters and opening parameters with the largest Modification Index (>3.84).

The linear structural relations between the exogenous and endogenous variables were analyzed with Lisrel-8.72 (Jöreskog & Sörbom, 2004). The model fit for the structural model (and for the measurement model as well) was valued according to Hooper et al (2008). Maximum Likelihood was used as estimation procedure ( $p < 0.10$ ). The model fit for the structural model (and for the measurement model as well) was valued good (Hooper et al 2008) if the Chi-Square of the model was less than twice the number of degrees of freedom, if the Root Mean Square Error of Approximation (RMSEA) and the Standardized Root Mean Square Residual (SRMR) were both smaller than 0.05, and if the Comparative Fit Index (CFI), was equal to or greater than 0.90. We verified whether the standardized residuals were normally distributed using the Q-plot. In addition, we ensured that the correlations of the parameter estimates of direct effects were  $< 0.7$ , since large correlations may indicate that the model is nearly non-identified and that some of the parameters cannot be determined from the data (Jöreskog & Sörbom, 2001).

## Appendix 2: Results of the structural relations analyses

### Results of the basic model

In Table 3 the direct effects of the exogenous variables on the endogenous variable Group (case group=1; control group = 2) in the basic model are shown. Of the 18 direct effects, only seven were significant at the 95%-confidence level and three at the 90%- confidence level; eight direct effects are not significant ( $P>0.10$ ).

In Table 4 the direct effects between the endogenous variables in the basic model are shown. Direct effects on the first three conflict styles in Table 3 were not significant. Also, the direct effect of the third conflict style on on-the-job embedded, and the direct effects of off-the-job embedded on the labour market demand for same skills/profession and on change in travelling time after job change, were not significant.

**Table 3: Basic model: the influence of exogenous on endogenous variable Group<sup>(1)</sup>**

		Exogenous Variables								
Endogenous Variable	Age	Gender	Couborn	Jtleng	Sector4	Sector6	Sector8	Numbempl	Travtim	
Group	0.096	0.082*	-0.092	0.092	0.094	0.054**	-0.008**	0.133	-0.060**	
	Psychco	Neuroco	Labconfl	Workrela	Othcom	Numcom	Durcomp	Labdem	Ctravtim	
Group	-0.079**	0.049**	-0.328	-0.149	0.072*	0.044**	-0.020**	-0.078*	0.057**	

(1) N=447; for all coefficients  $p\leq 0.05$ , except \* =  $0.05 < p \leq 0.10$ , \*\* = coefficient not significant

#### Exogenous variables:

Age= age in years at 2012 ; Gender = Gender of respondent Couborn= country born;  
 Jtleng= job tenure length ; Sector4= commercial business ; sector 6= Health Care and Welfare ;  
 Sector 8 = 'other' business ; Numbempl= number of employees at the plant/ company ;  
 Travtim= travelling time between work and home ; Psychco= psychic complaint as cause of sick leave ;  
 Neuroco= neurologic complaint as cause of the sick leave ; Labconfl= labour conflict as cause of sick leave ;  
 Workrela= work related complaint as cause of the sick leave; Othcom = 'other' complaint as cause of sick leave ;  
 Numcom= number of complaints as causes of the sick-leave; Durcom= the duration of the same complaints before sick-leave;  
 Labdem= labour market demand for same skills/ profession ; Ctravtim = change in travelling time after job change.

**Endogenous variables:** Group= case/control group.

(sellisrelbasismod2.OUT)

The model fit parameters (and Q-plot, not shown here) indicated that the basic model did not have a good fit in (see below Table 4). Furthermore, modification indices showed that coefficients that were closed now in the basic model could be significant (*ceteris paribus*), i.e. coefficients concerning direct effects of exogenous variables on endogenous variables, and/or concerning direct effects between endogenous variables, and /or coefficients concerning associations between disturbance terms of endogenous variables.

**Table 4: Basic model, direct effects and associations of disturbance terms between endogenous variables<sup>(1)</sup>**

Endogenous Variables	Group	Conflst1	Conflst2	Conflst3	Conflst4	Onjob	Offjob	Contcomp	Contempl	Actwork
Group										
Conflst1	0.016**									
Conflst2	-0.034**	-0.169								
Conflst3	0.046**	0.333	-0.298							
Conflst4	-0.074*	0.263	0.205	0.102						
Onjob	0.270	-0.076*	-0.104	0.002**	-0.140		0.307			
Offjob	0.138	-0.129	-0.103	0.082*	-0.129					
Contcomp	0.430					0.131	0.006**			0.206
Contempl	0.300					0.121	0.057**			
Actwork	0.277							0.098*	0.116	
<b>Squared Multiple Correlations for Structural Equations</b>										
	0.333	0.000	0.001	0.002	0.006	0.125	0.079	0.236	0.140	0.157

(1) N=447; for all coefficients  $p \leq 0.05$ , except \* =  $0.05 < p \leq 0.10$ , \*\* = coefficient not significant ; the associations between disturbance terms are *italic*.

**Endogenous variables:** Group= case/control group; Conflst1= avoiding stress; Conflst2= persevering for one's own interest; Conflst3= playing a waiting game; Conflst4= going for common interest and solution; Onjob= on-the-job embeddedness; Offjob= off-the-job embeddedness; Contcomp = contact from employer with employee during sick-leave; Contempl = contact from employee with company during sick-leave; Actwork= actually at work.

**Model fit:** Degrees of Freedom = 176; Normal Theory Weighted Least Squares Chi-Square = 280.371 (P = 0.000); Root Mean Square Error of Approximation (RMSEA) = 0.0365; Normed Fit Index (NFI) = 0.901; Comparative Fit Index (CFI) = 0.954; Standardized RMR = 0.0437; Goodness of Fit Index (GFI) = 0.957 (selLisrelbasismod2.OUT)

### Results of the final model: direct effects of exogenous on endogenous variables

In Table 5 the associations between the exogenous and the endogenous variables are shown. Two exogenous variables which were in the basic model were not included in the final model, because they were not significant or because of technical reasons (not-positive definite covariance matrix): "other" complaint as cause of the sick-leave (Othcom) and number of complaints as causes of the sick-leave (Numcom).

**Table 5: Final model: the direct effects of exogenous on endogenous variables<sup>(1)</sup>**

		Exogenous Variables							
Endogenous Variables	Age	Gender	Couborn	Jtleng	Sector4	Sector6	Sector8	Numbempl	
Group	0.082*	0.119	-0.087	0.130	0.064*			0.133	
Conflst1								0.102	
Conflst2							0.082*	-0.090*	
Conflst3			-0.223					0.116	
Conflst4		-0.101					0.106		
Onjob				0.108					
Offjob	0.077*		-0.165						
Concomp						0.087			
Contempl	-0.113						-0.073*		
Actwork	-0.084*	-0.149							
Endogenous Variables	Travtim	Psychco	Neuroco	Labconfl	Workrela	Durcomp	Labdem	Ctravtim	
Group		-0.112		-0.295	-0.134		-0.103	0.103	
Conflst1						-0.074*			
Conflst2		0.126		-0.093					
Conflst3									
Conflst4									
Onjob		-0.211						0.084	
Offjob	-0.131	-0.161							
Concomp			0.069*						
Contempl									
Actwork					0.114				

(1) N=447; for all coefficients  $p \leq 0.05$ , except \* =  $0.05 < p \leq 0.10$ ; ns = coefficient not significant

**Exogenous variables:**

Age= age in years at 2012 ; Gender = Gender of respondent Couborn= country born;  
 Jtleng= job tenure length ; Sector4= commercial business ; sector 6= Health Care and Welfare ;  
 Sector 8 = 'other' business ; Numbempl= number of employees at the plant/ company ;  
 Travtim= travelling time between work and home ; Psychco= psychic complaint as cause of sick leave ;  
 Neuroco= neurologic complaint as cause of sick leave ; Labconfl= labour conflict as cause of sick leave ;  
 Workrela= work related complaint as cause of the sick leave; Durcom= the duration of the same complaints before sick-leave;  
 Labdem= labour market demand for same skills/ profession ; Ctravtim = change in travelling time after job change.

**Endogenous variables:**

Group= case/control group; Conflst1= avoiding stress; Conflst2= persevering for one's own interest;  
 Conflst3= playing a waiting game; Conflst4= going for common interest and solution;  
 Onjob= on-the-job embeddedness; Offjob= off-the-job embeddedness;  
 Contcomp = contact from employer with employee during sick-leave;  
 Contempl = contact from employee with company during sick-leave; Actwork= actually at work  
 (selLisrel2h5.OUT)

Elder employees (Age: plus is elder ) were some more represented (Age-> Group= 0.082) in the control group (Group: plus is control group), were some more off-the-job (Age-> Offjob = 0.077)

embedded (Offjob: plus is more). Also, elder employees had less contact with the company (Contempl: plus is less contact) during sickness-leave at own initiative (Age-> Contempl= -0.113) and were some less frequently at work (Age-> Actwork= -0.084). With regard to gender, women were (Gender: plus is woman) more represented in the control group (Gender-> Group= 0.119) and agreed more (Gender-> Conflst4= - 0.101) with the conflict style 'going for common interest and solution' (Conflst1 to Conflst4: minus is more agreement). In the control group we found also more employees (Couborn-> Group= -0.087) who were born in the Netherlands (Couborn: plus is not-born in the Netherlands). People who were not born in the Netherlands agreed more (Couborn -> Conflst3= - 0.223) with the conflict style 'playing a waiting game' (Conflst3: minus is more agreement). Also, employees who were not born in the Netherlands were less off-the-job embedded (Couborn -> Offjob= - 0.165).

In the control group more employees (Jtleng-> Group= 0.130) had a longer job tenure (Jtleng: plus is longer) and employees with a longer job tenures were more on-the-job embedded (JtLeng -> Onjob= 0.108).

Some more employees in the control group were working in the commercial business (Sector4-> Group= 0.064). Employees in the health care and welfare sector (Sector6 -> Concomp= 0.087) experienced more that the employer kept contact during their sickness absence sufficiently (Concomp: plus is sufficient contact). Employees in 'other' business agreed some less with the conflict styles 'persevering for one's own interest' and with 'going for common interest and solution' (Sector8-> Conflst2= 0.082; Sector8 -> Conflst4= 0.106). In 'other' business the employees had more contact at own initiative (sector8-> Contempl= - 0.073) with the company (Contempl: minus is more contact). Employees from companies with a greater number of employees (Numbempl: plus is more) were more represented in the control group (Numbempl-> Group = 0.133). If the company had a greater number of employees (Numbempl: plus is more) than more sick-leaved employees agreed less with the conflict styles (Confl1 to Confl4: minus is more agreement) 'avoiding stress' (Numbempl-> Conflst1=0.102), some more with the conflict style 'persevering for one's own interest' (Numbempl-> Conflst 2= - 0.090), and less with the conflict style 'playing a waiting game' (Numbempl-> Conflst3= 0.116). Employees with more travel time (Travtime: plus is more) between work and home (Travtime-> Offjob= - 0.131) were less off-job-embedded (Offjob: plus is more embedded).

Employees with psychic complaints (Psychco: plus is yes) as cause of sickness absence were more represented in the case group (Psychco-> Group= -0.112) and agreed less with conflict style 'persevering for one's own interest' (Psychco-> Conflst2=0.126). Employees with psychic complaints are less on-job-embedded (Psychco-> Onjob= - 0.211), as well less off-job-embedded (Psychco-> Offjob= - 0.161). Employees with neurologic complaints experienced some more that their employer had sufficient contact with them during sickness absence (Neurco-> Concomp= 0.069). Employees with a labour conflict (Labconfl: plus is yes) as cause of the disease were more represented in the case group (Labconfl-> Group= -0.295). Employees with a labour conflict agreed more with the conflict style 'persevering for one's own interest' (Labconfl-> Conflst2= - 0.093). Employees who's cause of the sickness absence was work related (Workrela: plus is yes) were more represented in the case group (Workrela-> Group= - 0.134), and were more at work (Actwork: plus is yes) actually (Workrela-> Actwork= 0.114). Employees who's complaints already existed longer before sick-leave

(Durcomp: plus is longer before) agreed some more with the conflict style ‘avoiding stress’ (Durcomp-> Conflst1= - 0.074).

Employees who estimated the demand at the labour market (Labdem: plus is less demand) for their job as low were more represented in the case group (Labdem-> Group= - 0.103). Employees who estimated that the travelling time between work and home would rise in case of a job change (Ctravtim: plus is more), were more in the control group (Ctravtim-> Group= 0.103) and more on-the-job embedded (Ctravtim-> Onjob= 0.084).

*Results of the final model: direct effects between endogenous variables*

**Table 6: Final model, direct effects and associations of disturbance terms between endogenous variables<sup>(1)</sup>**

Endogenous Variables	GROUP	Conflst1	Conflst2	Conflst3	Conflst4	Onjob	Offjob	Contcomp	Contempl	Actwork
Group								-0.144	-0.278	-0.215
Conflst1							-0.126			
Conflst2		-0.163					-0.110			
Conflst3		0.328	-0.258							
Conflst4		0.238	0.159	0.126		-0.115	-0.133			
Onjob	0.198						0.306			
Offjob	0.068*									
Contcomp	0.564					0.101			0.241	
Contempl	0.601			0.091		0.117				
Actwork	0.510							0.129	0.197	
<b>Squared Multiple Correlations for Structural Equations</b>										
	0.313	0.030	0.051	0.068	0.068	0.146	0.097	0.224	0.077	0.114

<sup>(1)</sup> For all coefficients  $p \leq 0.05$ , except \* =  $0.05 < p \leq 0.10$ ; the associations between disturbance terms are *italic*.

**Endogenous variables:** Group= case/control group; Conflst1= avoiding stress; Conflst2= persevering for one’s own interest; Conflst3= playing a waiting game; Conflst4= going for common interest and solution; Onjob= on-the-job embeddedness; Offjob= off-the-job embeddedness; Contcomp = contact from employer with employee during sick-leave; Contempl = contact from employee with company during sick-leave; Actwork= actually at work.

**Model fit:** Degrees of Freedom = 145; Normal Theory Weighted Least Squares Chi-Square = 109.297 (P = 0.988); Root Mean Square Error of Approximation (RMSEA) = 0.0; Normed Fit Index (NFI) = 0.951; Comparative Fit Index (CFI) = 1.000; Standardized RMR = 0.0230; Goodness of Fit Index (GFI) = 0.981 (sellisrel2h5.OUT)

For the direct effects between endogenous variables (see Table 6, the not-Italic coefficients ) we found the following results. In the control group employees (Group: plus is control group) were more on-the-job embedded (Group -> Onjob = 0.233) and were some more off-the-job embedded (Group-> Offjob= 0.068). Employees of the control group experienced strongly more (Group -> Contcomp= 0.564) that the employer was keeping sufficient contact with them during sick-leave (Contcomp= plus is sufficient contact). It also appeared that the employees in the control group took strongly less initiative (Contempl: minus is more contact) to have contact with their company (Group -> Contempl= 0.601). Employees in the control group appeared to be strongly more at work during their sickness absence (Group -> Actwork= 0.510).

Employees who disagreed more with the conflict style ‘playing a waiting game’ (Confl3: plus is less agreement) took less frequently (Confl3-> Contempl= 0.091) initiative to have contact with the company (Contempl: plus is less contact).

The employees who were more on-the-job embedded (Onjob: plus is more) appeared more to agree (Conflst4: minus is more agreement) with the conflict style ‘going for a common interest and solution’ (Onjob -> Conflst4= -0.115). Also, they experienced more frequently that the employer had sufficient contact with them (Onjob -> Contcomp= 0.101). These employees themselves kept less

frequently contact (Contempl: minus is more) at own initiative with the company (Onjob-> Contempl = 0.117). The more 'off-the-job embedded' employees appeared to agree more (Offjob-> Conflst1= -0.126) with the conflict style 'avoiding stress' (Conflst1: minus is more agreement with style), and to agree more with conflict styles (Conflst2, Conflst4: minus is more agreement) 'persevering for one's own interest and' (Offjob-> Conflst2= -0.110) and 'going for common interest and solution' and Offjob-> Conflst4= -0.133).

The employees who experienced that the employer had sufficiently contact with them (Contcomp: plus is sufficient contact) during their sickness absence were more actually at work (Contcomp-> Actwork= 0.129). The employees who kept less contact with the company (Contempl: plus is less contact) during sickness absence at own initiative were actually more at work (Contempl-> Actwork= .197)

#### *Results of the final model: associations between disturbance terms of endogenous variables*

We found some associations between disturbance terms of endogenous variables (see Table 6, the italic coefficients), making the structural model non-recursive (Jöreskog & Sörbom 2001).

Between the four conflict styles we found significant associations, of which two negative ones: between avoiding stress (Conflst1) and playing a waiting game (Conflst3), on the one hand, and, at the other hand, persevering for one's own interest (Conflst2). Between the disturbance terms of on-the-job embedded (Onjob) and off-the-job embedded (Offjob) was a positive association. Sufficient contact from employer with employee during sick-leave (Contcomp: plus is sufficient contact) was associated with less contact from employee with company during sick-leave (Contempl: plus is less contact).

Furthermore, we found in the final model negative associations of the disturbance terms of three variables (Contcomp; Contempl; Actwork) with the disturbance term of the variable Group, while this last variable had also significant positive direct effects on these three variables. The employees who experienced the contact from the employer as sufficient (Contcon: plus is sufficient; Contcon <-> Group= -.144) and those who kept less contact with the company (Contempl: plus is less contact) during sickness absence at own initiative (Contempl <-> Group= -.278) and those who were actually at work (Actwork <-> Group: - 0.215) were more associated with the case group (Group: minus is case group).

#### *Results of the final model: model fit*

Model-fit-parameters (see below Table 6) and residuals (Q-plot, not shown here) showed that the final model had very good fit. There was one of the 'Modification Indices' in the final model significant (5.39, i.e. higher than 3.84), suggesting (*ceteris paribus*) a positive association between the disturbance terms of the variables 'contact from employer with employee during sick-leave' (Contcomp) and 'being actually at work' (Actwork). Implementing the association led to a negative explained variance of 'being actually at work' (Actwork) and therefore did not result in a model with better fit<sup>1</sup>. The explained variance (see last row in Table 6) was the highest for the variable Group

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<sup>1</sup> zie sellisrel2h6.OUT en sellisrel2h7.OUT

(0.313), then for Contcomp (0.224), OnJob (0.146), Actwork (0.114) and Offjob (0.097); the four conflict styles (Confl1 to Confl40 had the lowest explained variances (0.03-0.068).

There were four correlation of estimates higher than 0.70, i.e., those between the direct effects and the associations of the disturbance terms of the variable Group and the variables Contcomp, Contempl, and Actwork (and -0.721, -0.770, -0.827 and -0.831, respectively).

### Appendix 3: Cross validation of measurement model

**Table 1 Results first sample of the fitted measurement model of on-the-job and off-the-job (N=447)**  
LmodFS02tr.prs (fit van SEL1 vanaf basismodel LmodFS02.PR2)

Scale/dimension (standardized measurement error term) Plus pool is more link, fit and sacrifice	Standardized factor loadings latent variables (standard error)	
	on-the-job embedded	off-the-job embedded
Link-On1 (0.953) for the length of time in the job		0.214 (NA)
Link-On2 (0.977) for working in a team	0.148 (NA)	
Link-On3 (0.966) for following work-related courses	0.184 (0.072)	
Link-On4 (0.664) for the quality work by colleagues, no negative signals	0.594 (0.198)	
Fit-On1 (0.840) for good relations with colleagues	0.363 (0.108)	0.090 (0.055)*
Fit-On2 (0.884) for good opportunities to regulate own work	0.341 (0.109)	
Fit-On3 (0.830) for work appropriate to own values, home etc.	0.322 (0.106)	0.156 (0.060)
Sac-On (0.050) for various work-related fringe benefits #	0.981 (0.291)	
Link-Off1 (1.000) for own family	-	-
Link-Off2 (0.805) for relatives and friends		0.447 (0.111)
Link-Off3 (0.884) for activities in the region		0.362 (0.102)
Fit-Off (0.376) for the location of place of residence		0.793 (0.194)
Sac-Off (0.338) for various advantages of own living situation		0.814 (0.197)
<b>Fit measurement model</b>		
Chi-square	Fit parameters	
Degrees of freedom	57.239	
Probability	50	
Root Mean Square Error of Approximation	0.224	
Comparative fit index	0.0180	
	0.992	

All scale variables have the direction with the pole "plus is more". The latent variables "on-the-job embedded" and "off-the-job embedded" were estimated with Maximum Likelihood in one measurement model. The correlation between the disturbance terms of the two latent variables is 0.393 and significant (standard error: 0.161,  $p < 0.05$ ). All loadings are significant (student's  $t > 1.96$ ) at the  $p = 0.05$  level, except the loading marked with \* which is weakly significant ( $p \approx 0.10$ ). The standard errors for the first loadings of the two latent variables are not available (NA), because they were used as scale variables by the Lisrel program.

# Sac-On was estimated with the value of the measurement error fixed at 0.05 to avoid a Heywood case.

**Table 2 Results second sample of the fitted measurement model of on-the-job and off-the-job (N=445)** LmodFS02tr(CV5).PR2 (fit vanaf gefit model LmodFS02tr.prs=fit van SEL1 vanaf basismodel)

Scale/dimension (standardized measurement error term) Plus pool is more link, fit and sacrifice	Standardized factor loadings latent variables (standard error)	
	on-the-job embedded	off-the-job embedded
Link-On1 (0.972) for the length of time in the job		0.172 (NA)
Link-On2 (0.996) for working in a team	0.083 (NA)	
Link-On3 (0.991) for following work-related courses	0.101 (0.070)*	
Link-On4 (0.549) for the quality work by colleagues, no negative signals	0.668 (0.368)*	
Fit-On1 (0.739) for good relations with colleagues	0.512 (0.270)*	0.009 (0.060)**
Fit-On2 (0.999) for good opportunities to regulate own work	-	-
Fit-On3 (0.773) for work appropriate to own values, home etc.	0.309 (0.165)*	0.281 (0.100)
Sac-On (0.050) for various work-related fringe benefits #	0.987 (0.521)*	
Link-Off1 (0.977) for own family		0.153 (0.071)
Link-Off2 (0.833) for relatives and friends		0.408 (0.135)
Link-Off3 (0.980) for activities in the region		0.148 (0.069)
Fit-Off (0.422) for the location of place of residence		0.760 (0.240)
Sac-Off (0.373) for various advantages of own living situation		0.792 (0.250)
<b>Fit measurement model</b>		
Chi-square	Fit parameters	
Degrees of freedom	56.198	
Probability	49	
Root Mean Square Error of Approximation	0.223	
Comparative fit index	0.0182	
	0.989	

All scale variables have the direction with the pole "plus is more". The latent variables "on-the-job embedded" and "off-the-job embedded" were estimated with Maximum Likelihood in one measurement model. The correlation between the disturbance terms of the two latent variables is 0.269 and weakly significant (standard error: 0.172,  $p < 0.10$ ). All loadings are significant (student's  $t > 1.96$ ) at the  $p = 0.05$  level, except the loading marked with \* which is weakly significant ( $p \approx 0.10$ ). The loading marked \*\* is nearly zero and not significant, but important to have the model converge. The standard errors for the first loadings of the two latent variables are not available (NA), because they were used as scale variables by the Lisrel program.

# Sac-On was estimated with the value of the measurement error fixed at 0.05 to avoid a Heywood case.

**Table 3 Comparison results second sample (Table 2) with first sample (Table 1)**

Scale/dimension (standardized measurement error term)	Standardized factor loadings latent variables (standard error)	
	on-the-job embedded	off-the-job embedded
Plus pool is more link, fit and sacrifice		
Link-On1 (for the length of time in the job		Confirmed
Link-On2 for working in a team#	Confirmed	
Link-On3 for following work-related courses	Confirmed	
Link-On4 for the quality work by colleagues, no negative signals	Confirmed	
Fit-On1 for good relations with colleagues	Confirmed	Not confirmed
Fit-On2 for good opportunities to regulate own work	Not Confirmed	
Fit-On3 for work appropriate to own values, home etc.	Confirmed	Confirmed
Sac-On for various work-related fringe benefits	Confirmed	
Link-Off1 for own family		Not confirmed
Link-Off2 for relatives and friends		Confirmed
Link-Off3 for activities in the region		Confirmed
Fit-Off for the location of place of residence		Confirmed
Sac-Off for various advantages of own living situation		Confirmed

Confirmed = parameter of second sample has same direction and (more or less) significance as in first sample.

Not confirmed = result is quite different in of second sample compared to first sample.

Overall: of the fifteen parameters, three were not confirmed, twelve were confirmed.

## Appendix 4: Cross validation of structural relations model

**Table 1: Final model second sample: the direct effects of exogenous on endogenous variables<sup>(1)</sup>**

		Exogenous Variables						
Endogenous Variables	Age	Gender	Couborn	Jtleng	Sector4	Sector6	Sector8	Numbempl
Group			-0.211	0.147			-0.102	
Conflst1					0.084	0.096		0.079*
Conflst2		0.161						-0.123
Conflst3			-0.197	-0.081			-0.123	0.103
Conflst4								
Onjob			-0.125	0.224				
Offjob	0.105							
Concomp								
Contempl							-0.073*	
Actwork	-0.116	-0.149				-0.092		
Endogenous Variables	Travtim	Psychco	Neuroco	Labconfl	Workrela	Durcomp	Labdem	Ctravtim
Group	-0.104	-0.237		-0.429			-0.081	0.086
Conflst1				-0.092	0.085*			
Conflst2				-0.113		-0.097	0.098	
Conflst3	0.085			0.146	0.111			0.125
Conflst4		0.081*			-0.107			
Onjob								
Offjob								
Concomp							-0.113	
Contempl			0.092		-0.096		-0.090	
Actwork								

<sup>(1)</sup> N=445; for all coefficients  $p \leq 0.05$ , except \* =  $0.05 < p \leq 0.10$ ;

**Exogenous variables:**

Age= age in years at 2012 ; Gender = Gender of respondent Couborn= country born;  
 Jtleng= job tenure length ; Sector4= commercial business ; sector 6= Health Care and Welfare ;  
 Sector 8 = 'other' business ; Numbempl= number of employees at the plant/ company ;  
 Travtim= travelling time between work and home ; Psychco= psychic complaint as cause of sick leave ;  
 Neuroco= neurologic complaint as cause of sick leave ; Labconfl= labour conflict as cause of sick leave ;  
 Workrela= work related complaint as cause of the sick leave; Durcom= the duration of the same complaints before sick-leave;  
 Labdem= labour market demand for same skills/ profession ; Ctravtim = change in travelling time after job change.

**Endogenous variables:**

Group= case/control group; Conflst1= avoiding stress; Conflst2= persevering for one's own interest;  
 Conflst3= playing a waiting game; Conflst4= going for common interest and solution;  
 Onjob= on-the-job embeddedness; Offjob= off-the-job embeddedness;  
 Concomp = contact from employer with employee during sick-leave;  
 Contempl = contact from employee with company during sick-leave; Actwork= actually at work  
 (sel2Lisrel1j.OUT)

**Table 2: Final model second sample: direct effects and associations of disturbance terms between endogenous variables<sup>(1)</sup>**

Endogenous Variables	GROUP	Conflst1	Conflst2	Conflst3	Conflst4	Onjob	Offjob	Contcomp	Contempl	Actwork
Group								-0.206	-0.129	-0.159
Conflst1								-0.097*		
Conflst2		-0.103								
Conflst3	0.108	0.308	-0.243							
Conflst4	-0.099	0.284	0.281	0.134			-0.126			
Onjob	0.210			-0.137			0.204			
Offjob	0.349									
Contcomp	0.575	0.100							0.223	
Contempl	0.392			0.137	-0.100					
Actwork	0.483			0.167						
<b>Squared Multiple Correlations for Structural Equations</b>										
	0.310	0.051	0.072	0.152	0.047	0.137	0.010	0.253	0.142	0.104

<sup>(1)</sup> For all coefficients  $p \leq 0.05$ , except \* =  $0.05 < p \leq 0.10$ ; the associations between disturbance terms are *italic*.

**Endogenous variables:** Group= case/control group; Conflst1= avoiding stress; Conflst2= persevering for one's own interest; Conflst3= playing a waiting game;  
 Conflst4= going for common interest and solution; Onjob= on-the-job embeddedness; Offjob= off-the-job embeddedness; Contcomp = contact from employer  
 with employee during sick-leave; Contempl = contact from employee with company during sick-leave; Actwork= actually at work.

**Model fit:** Degrees of Freedom = 141; Normal Theory Weighted Least Squares Chi-Square = 98.985 (P = 0.977); Root Mean Square Error of Approximation (RMSEA) = 0.0; Normed Fit Index (NFI) = 0.951; Comparative Fit Index (CFI) = 1.000; Standardized RMR = 0.0251; Goodness of Fit Index (GFI) = 0.983  
 (sel2Lisrel1j.OUT)

**Table 3: Comparison results exogenous relations of second sample with first sample <sup>(1)</sup>**

Exogenous Variables								
Endogenous Variables	Age	Gender	Couborn	Jtleng	Sector4	Sector6	Sector8	Numbempl
Group	Not	Not	Yes	Yes	Not		-0.102	Not
Conflst1					0.084	0.096		Yes
Conflst2		0.161					Not	Yes
Conflst3			Yes	-0.081			-0.123	Yes
Conflst4		Not					Not	
Onjob			Yes	Yes				
Offjob	Yes							
Concomp						Not		
Contempl	Not						Yes	
Actwork	Yes	Yes				-0.092		
Endogenous Variables	Travtim	Psychco	Neuroco	Labconfl	Workrela	Durcomp	Labdem	Ctravtim
Group	-0.104	Yes		Yes	Not		Yes	Yes
Conflst1				-0.092	0.085	Not		
Conflst2		Not		Yes		-0.097	0.098	
Conflst3	0.085			0.146	0.111			0.125
Conflst4		0.081			-0.107			
Onjob		Not						Not
Offjob	Not	Not						
Concomp			Not				-0.113	
Contempl			0.092		-0.096		-0.090	
Actwork					Not			

<sup>(1)</sup> Yes = 17 parameters of second sample had the same direction as in first sample.

Not = 18 parameters of second sample were zero, but not in first sample.

Figures = 22 parameter were zero in first sample but not in second sample

Overall: of the 35 parameters of first sample, 17 (49%) were confirmed, and 18 not (51%), i.e. the relations of the exogenous with the endogenous variables were quite different in second sample compared to those of first sample.

**Table 4: Comparison results endogenous relations of second sample with first sample <sup>(1)</sup>**

Endogenous Variables	GROUP	Conflst1	Conflst2	Conflst3	Conflst4	Onjob	Offjob	Contcomp	Contempl	Actwork
Group							-0.206	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>
Conflst1							Yes			
Conflst2		<b>Yes</b>					Not			
Conflst3	0.108	<b>Yes</b>	<b>Yes</b>							
Conflst4	-0.099	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>		Not	Yes			
Onjob	Yes			-0.137			<b>Yes</b>			
Offjob	Yes									
Contcomp	Yes	<i>0.100</i>				Not			<b>Yes</b>	
Contempl	Yes			Yes	-0.100	Not				
Actwork	yes			0.167				Not	Not	

<sup>(1)</sup> The associations between disturbance terms are ***Italic bold***

Yes = 19 parameters of second sample had the same direction as in first sample.

Not = 6 parameters of second sample were zero, but not in first sample.

Figures = 7 parameters of first sample were zero but not in second sample.

Overall: of the 25 parameters of first sample, 19 (76%) were confirmed, and 6 not (24%):

Most of the relations of the endogenous variables were quite similar in second sample compared to those of first sample. The relation between Onjob and Offjob was confirmed in the cross validation, even so the relations between Group and Onjob, Offjob, Contcomp, Contempl and Actwork

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