



Employee identification before and after an internal merger: A longitudinal analysis

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Earlier studies have shown that perceived external prestige (PEP) and communication climate influence employees' overall organizational identification. This paper presents the results of a longitudinal study into the determinants of organizational identification at two organizational levels during an internal merger. Data were collected in a university where four divisions merged into two new divisions. Respondents filled out a questionnaire on organizational identification, PEP and communication climate 4 months before the merger (T1) and 2 years after the merger (T2). Results indicate that pre-merger identification primarily influences post-merger identification at the same organizational level. Furthermore, the determinants of employees' overall organizational identification differ from the determinants of employees' division identification. Internal communication climate is particularly important for employees' identification with their division. PEP affects employees' identification with the overall organization. Management implications are discussed for monitoring employee identification both in times of (internal) mergers and in general.

The idea of employees identifying with their organization has been of academic interest for many years (Ashforth & Mael, 1989). People who strongly identify with their organization tend to have a positive attitude towards the organization (Mael & Ashforth, 1992), have less intention to leave (Van Dick *et al.*, 2004), are more satisfied with their job (Van Knippenberg & Van Schie, 2000), show more organizational citizenship behaviour (Bergami & Bagozzi, 2000; Christ, Wagner, Stellmacher, & Van Dick, 2003; Feather & Rauter, 2004) and cooperate more intensively with other organizational members (Dutton, Dukerich, & Harquail, 1994).

Especially in today's hectic organizational life of change, identity issues become salient (Cartwright & Cooper, 1993; Haunschild, Moreland, & Murrell, 1994; Terry &

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Callan, 1998; Van Knippenberg, Van Knippenberg, Monden, & De Lima, 2002). Several studies have shown that organizational restructuring may fail because of employees' feelings of threat to their individual self-esteem and well-being (Callan, Terry, & Schweitzer, 1994; Cartwright & Cooper, 1993), uncertainty about how the changes will affect their work (Ashford, 1988), and employees holding on to old identities (Blake & Mouton, 1985; Buono & Bowditch, 1989). In contrast, positive identification with the newly merged organization has proven to be a crucial factor in explaining successful restructuring processes (Bachman, 1993; Van Knippenberg *et al.*, 2002).

Several studies have focused on the relevance of identification in (internal) merger contexts (Bartels, Douwes, De Jong, & Pruyn, 2006; Jetten, O'Brien, & Trindall, 2002; Van Dick, Ullrich, & Tissington, 2006; Van Dick, Ullrich, & Wieseke, 2005; Van Knippenberg *et al.*, 2002; Van Leeuwen, Van Knippenberg, & Ellemers, 2003). Most of these studies only focus, however, on one organizational level of identification. They typically highlight the degree to which employees identify themselves with the original organization as a whole, in relation to their identification with the newly merged organization as a whole. However, as was already emphasized by Reichers (1985), it is important to distinguish multiple identifications with various groups within the organization. Recent studies on organizational identification have demonstrated that it is important to distinguish various organizational levels with which employees may identify (Bartels, Pruyn, De Jong, & Joustra, 2007; Riketta, 2005; Scott, 1997; Van Dick, Wagner, & Lemmer, 2004). Identification with the organization as a whole is only part of the picture; employees appear to identify with lower organizational units as well. Although, in general, strong positive correlations are found between employees' identification with different organizational levels, research has demonstrated that these levels of identification may be due to different antecedents (Riketta & Van Dick, 2005).

Another limitation of the research on identification in merger contexts is that the majority of the studies are cross-sectional: despite the fact that mergers are (often) lengthy processes, most studies have restricted their data collection to one particular moment in the process. Generally speaking, researchers have measured pre- and post-merger identification and possible determinants in a post-merger situation. Bartels *et al.* (2006) chose a different perspective and measured the pre-merger identification, other determinants, and expected identification with the new organization in a pre-merger situation, before the merger had actually taken place. The cross-sectional nature of these studies can be a serious restriction for conclusions on causal relationships (e.g. Lindell & Whitney, 2001; MacCallum & Austin, 2000; Wong & Law, 1999).

This paper describes a longitudinal study into the determinants of employee identification on two organizational levels after an internal merger. The aim of this study was to gain insight into the impact of pre-merger identification, communication climate, and perceived external prestige (PEP) on employees' post-merger identification. The research was conducted in a Dutch university during a major organizational restructuring. To improve efficiency in management, 13 divisions merged into 5 new divisions (faculties). The mergers of two of these new divisions were monitored during a time frame of 2.5 years. Both new divisions consisted of two separate divisions prior to the internal mergers. The restructuring formally took place at the beginning of 2003. Data were collected 4 months before and 2 years after the internal mergers. Employees who participated in this study were faculty (e.g. lecturers and professors) and staff (e.g. administrative assistants and department secretaries). Before describing the methods and results of our study, we will first discuss earlier findings on the impact of the determinants used.

Determinants of identification in a merger context

In organizational behaviour literature, various determinants have been related to organizational identification (cf. Riketta, 2005; Riketta & Van Dick, 2005). In merger contexts, three types of determinants can be distinguished: individual characteristics (e.g. tenure, age, gender), characteristics of the merger process (e.g. sense of continuity, communication about the merger), and pre- or post-merger organizational characteristics (e.g. pre-merger identification, communication climate, perceived organizational prestige).

This article focuses on the effects of organizational characteristics on employees' post-merger identification. In our overview of the determinants of post-merger identification, we will discuss earlier research on identification, both in merger and *status quo* contexts, as well as research on organizational commitment. Although theoretically, commitment and identification can be seen as different constructs (Edwards, 2005; Edwards & Peccei, 2007; Van Dick, 2004; Van Knippenberg & Sleebos, 2006), they often show a strong overlap (Ashforth & Saks, 1996; Gautam, Van Dick, & Wagner, 2004; Harris & Cameron, 2005; Riketta, 2005).

Dynamics of organizational identification

Research on organizational identification suggests a certain degree of stability in the extent to which employees identify with their organization. In merger contexts, pre-merger identification is found to strongly contribute to employees' post-merger identification (Bartels *et al.*, 2006; Boen, Vanbeselaere, Brebels, Huybens, & Millet, 2007; Boen, Vanbeselaere, & Cool, 2006; Jetten *et al.*, 2002; Van Dick *et al.*, 2005, 2006; Van Knippenberg *et al.*, 2002; Van Leeuwen *et al.*, 2003). Furthermore, several studies have shown that employees identify with various organizational levels, and that there is a positive relationship between their identification with adjacent levels (Bartels *et al.*, 2007; Scott, 1997; Scott *et al.*, 1999). More specifically, Bartels *et al.* (2007) found that the correlation between identifications with more closely related organizational levels is stronger than the correlation between identifications with organizational levels that are further apart from one another. Based on these findings, we assume that identifications over time at the same organizational level and identifications across organizational levels at the same time will be more strongly related than identifications over time at different organizational levels. Therefore, we hypothesize:

H1: Employees' post-merger university identification is positively related to both their pre-merger university identification and their current division identification.

H2: Employees' post-merger university identification is more strongly affected by their pre-merger university identification than by their pre-merger division identification.

H3: Employees' post-merger division identification is positively related to both their pre-merger division identification and their current university identification.

H4: Employees' post-merger division identification is more strongly affected by their pre-merger division identification than by their pre-merger university identification.

Communication climate and perceived external prestige

Several studies have shown that communication climate is related to the extent to which employees identify with their organization (Scott *et al.*, 1999; Smidts, Pruyn,

& Van Riel, 2001). Similar results were found in organizational commitment research (e.g. Allen & Brady, 1997; Guzley, 1992; Welsch & LaVan, 1981). Communication climate is defined as ‘a subjective experienced quality of the internal environment of an organization: the concept embraces a general cluster of inferred predispositions, identifiable through reports of members perceptions’ of messages and message-related events occurring in the organization’ (Dennis, 1974, p. 29). Especially, the dimensions of openness, participative decision-making, supportiveness, and trust appear to be positively related to employee identification. Based on these results in *status quo* situations, we assume that communication climate will also affect employees’ organizational identification in times of internal mergers, as was partly confirmed by Bartels *et al.* (2006).

Many studies have underlined the importance of PEP for employees’ organizational identification and commitment (Bergami & Bagozzi, 2000; Carmeli, 2005; Carmeli & Freund, 2002; Cornwell & Coote, 2005; Dutton & Dukerich, 1991; Herrbach, Mignonac, & Gatignon, 2004; Iyver, Bamber, & Barefield, 1997; Lipponen, Helkama, Olkkonen, & Juslin 2005; Mael & Ashforth, 1992; Mayer & Schoorman, 1998; Smidts *et al.*, 2001). PEP concerns employees’ perception of how the outside world views their organization. The more employees see their organization as important in the outside world, the stronger they will identify with their organization. Again, we assume that PEP will also affect employees’ organizational identification during an internal merger.

So far, only two studies have combined communication climate and PEP as predictors of employees’ organizational identification. Smidts *et al.* (2001) found that both variables affected employees’ identification with the overall organization. Bartels *et al.* (2007) refined these findings by exploring the impact of both variables on employees’ identification with different organizational levels. They found that communication climate and PEP at a certain organizational level mainly affected employees’ identification with the same level. Furthermore, PEP was relatively strongly related to employees’ identification with the overall organization, whereas communication climate mainly influenced employees’ identification with lower organizational levels. The latter results are only indicative, since the questionnaires did not include communication climate measurements at the highest organizational level, and PEP measurement at the lower levels. Based on these findings, we hypothesize:

H5: Employees’ post-merger university identification is more strongly related to PEP than to communication climate.

H6: Employees’ post-merger division identification is more strongly related to communication climate than to PEP.

H7: Employees’ post-merger university identification is only related to PEP at the university level, not at the division level.

H8: Employees’ post-merger division identification is only related to communication climate at the division level, not at the university level.

Method

Participants and design

The research was conducted in a longitudinal context of four divisions merging into two divisions within a Dutch university. The restructuring took place at the beginning

of 2003. Data were collected 4 months before the mergers (T1) and 2 years after the mergers (T2). Both at T1 and T2 the numbers of respondents per division were approximately equal. A total of 258 employees completed the T1 questionnaire, which was a response rate of 45%. At T2, 187 respondents of the 258 employees of T1 were still employed at one of the two merged divisions. All 187 respondents received a T2 questionnaire. Employees who completed the T2 questionnaire amounted to 53% of those in the T1 sample who still worked in the organization at the time of the second survey ($N = 99$).

MANOVA was used to test whether T2 respondents differed from T2 non-respondents on the dependent and independent variables at T1. Both respondents and non-respondents did not differ significantly ($F(9, 177) = 1.56; p = .13$). Non-respondent bias therefore does not seem likely.

The final sample displays the following demographic characteristics: males slightly outnumbered females by 3:2; 61% of the respondents' age were between 30 and 50; 59% had been employed for more than 5 years; 73% had a full-time employment in a tenure track position; 74% were faculty and 26% were staff. Except for gender, all demographic variables are representative for the personnel of the two merged divisions at T1 and T2. To check for the relevance of the overrepresentation of male respondents, we used MANOVA, which revealed no significant differences between men and women on all variables at T1 ($F(9, 89) = 1.04; p = .42$) and T2 ($F(9, 89) = 1.31; p = .24$).

Procedure for data collection

For both respondent groups, data were collected using self-administered questionnaires. The questionnaires were sent via internal mail to the entire population of employees of both divisions at T1 and T2. To increase the response, employees were informed that questionnaires would be personally collected by the researchers within the next 2 weeks. If respondents had not filled out their questionnaire at the time of collection, they were requested to return their questionnaire via internal mail. The data collection procedure was the same at T1 and at T2.

Pre-merger and post-merger measures

Apart from questions about the respondents' background, the questionnaire covered six topics at T1 and T2. The following variables were measured: university identification; division identification; the university's communication climate; the division's communication climate; the university's PEP; and the division's PEP. For all measures a 5-point Likert scale was used, with response options ranging from *strongly disagree* to *strongly agree*.

University and division identification were measured using an 11-item scale based on Mael and Ashforth (1992) and Smidts *et al.* (2001). Sample items were: 'I feel strong ties with [name University or Division]'; 'I am glad to be a member of [name University or Division]'; and 'When I talk about [name University or Division], I usually say *we*, rather than *they*'. We conducted a confirmatory factor analysis (CFA) for the T2 variables to check whether the two identification scales showed discriminant validity. CFA showed two different constructs (explained variance 52%). Factor loadings of the 11-item scale were between .51 and .81 for university identification and .54 and .81 for division identification. Scale reliability was high for all identification scales at T1 and T2 (Cronbach's α between .88 and .91).

The university's and division's communication climate were measured using an 11-item scale based on Smidts *et al.* (2001). Example items were: 'Generally speaking, everyone at [name University or Division] is honest with one another'; 'If I talk with colleagues at [name University or Division], I feel I am being taken seriously'; and 'Colleagues at [name University or Division] genuinely listen to me when I say something'. CFA showed two different constructs for the university's and division's communication climate (explained variance 54%). Factor loadings of the 11-item scale were between .34 and .80 for the university's communication climate and .35 and .82 for the division's communication climate. Scale reliability was high for both communication climate scales at T1 and T2 (Cronbach's α between .88 and .92).

PEP Division and PEP University were measured using two 5-item scales based on Mael and Ashforth (1992) and Smidts *et al.* (2001). Example items were: '[Name University or Division] has a good reputation' and '[Name University or Division] is regarded as pleasant to work for'. CFA showed two different constructs for the university's and division's PEP (explained variance 53%). Factor loadings of the 5-item scale were between .56 and .82 for PEP university and .64 and .82 for PEP division. Scale reliability was adequate for both scales at T1 and T2 (Cronbach's α between .73 and .76).

Data analysis

In order to test our hypotheses, we conducted two hierarchical regression analyses: one for respondents' post-merger identification with the university and one for their post-merger identification with their (recently merged) division. In each analysis, we used four models to explain post-merger identification. The first model consisted of the respondents' demographics, as measured at T2. The second model included their pre-merger identifications as well as their post-merger identification with the other organizational level (Hypotheses 1–4). The third and fourth model alternated between the two analyses. In the regression analysis of post-merger *university identification* (Hypotheses 5 and 7), the third model involved the communication climate variables, and the fourth model PEP (since Hypothesis 5 predicted that PEP would have a stronger influence than communication climate). In the regression analysis of post-merger *division identification* (Hypotheses 6 and 8), the third model included PEP, and the fourth communication climate (since Hypothesis 6 predicted that the influence of communication climate would be stronger than that of PEP). To investigate the development of organizational identification across time and between organizational levels, we included both T1 and T2 identification measures in the analyses. For communication climate and PEP, we used the T1 measurements to be able to draw stronger conclusions about the relationship between these predictors and identification. However, since the correlations between the division's communication climate at T1 and T2 were low (cf. Table 1), we used both the T1 and T2 measurements for the division's communication climate.

Results

Descriptive results

Table 1 shows means, standard deviations, and zero-order correlations among all variables included in this study at T1 and T2. No significant differences were found between employees' university identification, the university's communication climate, and PEP university at T1 and T2. The T1 and T2 measurements at the university level show

Table 1. Descriptive statistics and intercorrelations among study variables at T1 and T2 (N = 99)

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
Organizational identification														
1) University identification T2	3.21	0.59	(.90)											
2) Division identification T2	3.09	0.57	.44**	(.90)										
3) University identification T1	3.30	0.61	.58**	.42**	(.89)									
4) Division identification T1	3.30	0.69	.30**	.48**	.48**	(.91)								
Communication climate														
5) University communication T2	3.10	0.46	.32**	.33**	.29**	.11	(.91)							
6) Division communication T2	3.24	0.50	.24*	.57**	.28**	.19	.66**	(.88)						
7) University communication T1	3.11	0.48	.30**	.37**	.32**	.34**	.60**	.50**	(.90)					
8) Division communication T1	3.30	0.60	.30**	.30**	.30**	.58**	.20*	.17	.47**	(.92)				
Perceived external prestige (PEP)														
9) PEP university T2	3.80	0.44	.50**	.36**	.46**	.36**	.42**	.33**	.44**	.47**	(.75)			
10) PEP division T2	3.32	0.44	.19	.23*	.22*	.26*	.14	.13	.10	.18	.27**	(.73)		
11) PEP university T1	3.78	0.48	.51**	.29**	.38**	.22*	.21*	.14	.31**	.25*	.45**	.13	(.76)	
12) PEP division T1	3.34	0.51	.14	.00	.10	.22*	.08	.04	.20*	.20*	.16	.25*	.28**	(.73)

Note. *p < .05; **p < .01.

relatively strong correlations ($r = .58, .60, \text{ and } .45$, respectively), underlining the stability of the organization as a whole during the measurement period. Employees' division identification, however, showed a significant decline between T1 and T2 ($t = -3.26; df = 98, p < .05$). The determinants of division identification did not differ between T1 and T2, but the correlations between T1 and T2 were either not significant (communication climate, $r = .17$) or low (PEP, $r = .25$), reflecting the organizational changes within the divisions over time.

Hypothesis tests regarding university identification (Hypothesis 1, 2, 5, and 7)

Table 2 shows the regression results of the impact of the variables at T2 and T1 on *university identification* at T2. The demographic variables do not appear to have a significant effect on employees' university identification. The explained variance of all determinants on employees' post-merger university identification at T2 was 52%.

As indicated in Table 2, employees' post-merger university identification is related to both their pre-merger university identification ($\beta = 0.38; p < .001$) and their post-merger division identification ($\beta = 0.24; p < .05$). This confirms Hypothesis 1. We conducted a Fisher's Z-test to test whether employees' post-merger university identification is more strongly affected by their pre-merger university identification than by their pre-merger division identification. The difference between the regression weights was significant ($p < .001$). Therefore, Hypotheses 2 and 5 are confirmed. Employees' post-merger university identification is more strongly related to PEP ($\beta = 0.30; p < .001$) than to communication climate (*ns*). Finally, employees' post-merger university identification is only related to PEP university, not to PEP division. This confirms Hypothesis 7.

Hypothesis tests regarding division identification (Hypothesis 3, 4, 6, and 8)

Table 3 shows the regression results of the impact of the variables at T2 and T1 on *division identification* at T2. Again, the demographic variables do not appear to have a significant effect on employees' division identification. The explained variance of all determinants on employees' post-merger division identification at T2 was 56%.

Employees' post-merger division identification is related to both their pre-merger division identification ($\beta = 0.41; p < .001$) and their post-merger university identification ($\beta = 0.22; p < .05$). Hypothesis 3 is thus confirmed. Furthermore, employees' post-merger division identification is more strongly affected by their pre-merger division identification than by their pre-merger university identification. Fisher's Z-test showed a significant difference between the two regression weights ($p < .001$). Therefore, Hypotheses 4 and 6 are confirmed. Employees' post-merger division identification is more strongly related to communication climate ($\beta = 0.43; p < .001$) than to PEP (*ns*). Finally, employees' post-merger division identification is only related to the division's communication climate, not to the university's communication climate. This confirms Hypothesis 8.

Discussion

Main conclusions

The results of this study shed light on the way organizational identification develops during an internal merger and the variables that affect this process. Several conclusions

Table 2. Regression for impact of T1 and T2 variables on university identification at T2

Predictors	ΔR^2	Model 1		Model 2		Model 3		Model 4	
		β	t	β	t	β	t	β	t
Demographics	.08								
Years of service		-0.11	-0.77	-0.22	-1.92	-0.19	-1.62	-0.19	-1.64
Tenure		-0.23	-1.73	-0.12	-1.06	-0.19	-1.20	-0.13	-1.24
Full-time or part-time employment		-0.06	-0.59	0.02	0.24	0.01	0.12	-0.02	-0.28
Age		-0.05	-0.36	0.08	0.73	0.06	0.59	-0.00	-0.03
Gender		0.24	2.02*	0.10	1.00	0.10	1.06	0.08	0.92
Faculty or staff		-0.21	-1.93	-0.14	-1.54	-0.16	-1.66	-0.09	-0.90
Organizational identification	.35**								
Division identification T2				0.31	3.19*	0.31	2.74*	0.24	2.09*
University identification T1				0.49	4.81**	0.47	4.45**	0.38	3.63**
Division identification T1				-0.11	-1.06	-0.178	-1.52	-0.13	-1.16
Communication climate	.02								
Division communication T2						-0.04	-0.319	0.01	0.08
University communication T1						0.10	0.932	0.02	0.18
Division communication T1						0.10	0.877	0.08	0.72
Perceived external prestige (PEP)	.07*								
PEP division T2								0.04	0.46
PEP university T1								0.30	3.20*
PEP division T1								0.02	0.21
R^2		.08		.44		.45		.52	
F		1.38		7.58**		5.88**		5.92**	
df		6, 91		9, 88		12, 85		15, 82	

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

Table 3. Regression for impact of T1 and T2 variables on division identification at T2

Predictors	ΔR^2	Model 1		Model 2		Model 3		Model 4	
		β	t	β	t	β	t	β	t
Demographics	.03								
Years of service		0.16	1.12	0.27	2.34*	0.24	2.05*	0.10	0.90
Tenure		0.02	0.17	0.15	1.33	0.14	1.22	0.08	0.79
Full-time or part-time employment		-0.03	-0.32	0.05	0.60	0.06	0.64	0.04	0.47
Age		-0.07	-0.51	-0.15	-1.36	-0.19	-1.69	-0.13	-1.25
Gender		0.10	0.80	-0.04	-0.37	-0.06	-0.59	-0.03	-0.31
Faculty or staff		0.10	0.81	0.22	2.52*	0.27	2.75*	0.10	0.99
Organizational identification	.37**								
University identification T2				0.33	3.19*	0.28	2.51*	0.22	2.09*
University identification T1				0.06	0.49	0.03	0.24	-0.03	-0.32
Division identification T1				0.41	4.11**	0.41	4.13**	0.41	3.99**
Perceived external prestige (PEP)	.03								
PEP division T2						0.15	1.66	0.10	1.25
PEP university T1						0.11	1.06	0.12	1.32
PEP division T1						-0.15	-1.65	-0.15	-1.84
Communication climate	.13**								
Division communication T2								0.43	4.68**
University communication T1								-0.04	-0.37
Division communication T1								-0.04	-0.43
R ²			.03		.40		.43		.56
F			0.47		6.53		5.42		7.04
df			6, 91		9, 88		12, 85		15, 82

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

may be drawn. In line with previous research, employees' pre-merger identification appears to be an important antecedent of their post-merger identification (e.g. Bartels *et al.*, 2006; Van Knippenberg & Van Schie, 2000). These earlier results, however, are amended by our analysis of the two organizational levels. Pre-merger identification appears to primarily influence post-merger identification at the same organizational level. Interestingly, the results suggest that the influence of pre-merger identification is not necessarily affected by the continuity of the organizational levels involved. Both for the (stable) university and the (merged) divisions, employees' pre-merger identification appeared to be a very strong predictor of their post-merger identification.

A second conclusion involves the determinants of employees' identification at the two organizational levels. It appears that determinants of overall organizational identification differ from the determinants of employees' identification with a lower organizational level. This is in line with earlier research in non-merger settings (e.g. Reade, 2001; Riketta & Van Dick, 2005; Van Knippenberg & Van Schie, 2000). Earlier research by Smidts *et al.* (2001) showed that PEP and communication climate are important determinants of employees' organizational identification. This study reinforces the importance of both determinants but also shows that their relevance depends on the organizational level employees identify with. Communication climate appeared to be especially important for the identification with the lower organizational level (together with pre-merger division identification, it was the most important predictor of post-merger division identification). At the overall organizational level, communication climate was not connected at all with organizational identification. In contrast, PEP only played a role in employees' identification with the overall organization (together with pre-merger university identification, it was the most important predictor of post-merger university identification). PEP did not play a role of any importance for division identification. These findings confirm the results of Bartels *et al.* (2007) in a regional police organization in a *status quo* setting. Two shortcomings of this earlier study, however, were that two determinants were not measured at all organizational levels and that it was based on cross-sectional data. In this longitudinal study, we included measurements of communication climate at the highest organizational level, and measurements of PEP at the lower organizational level, and unambiguously found that communication climate is exclusively related to employees' identification with the lower organizational level, and PEP to employees' identification with the overall organization.

Management implications

The results of this longitudinal study offer various starting-points for the management of employee identification, both in times of internal mergers and in general. First, the extent to which employees identify with the organization (or an organizational unit) before an internal merger appears to have a lasting effect on the extent to which they will identify after the merger. It is therefore important to monitor and facilitate employee identification not only in merger situations but also as a continual process.

Second, it is important to realize that in many organizations there will be more than one organizational level with which employees can and probably will identify. Although employees' identifications with these organizational levels may correlate strongly (as they did in this study), it seems important to pay attention to identification issues at all relevant levels of an organization. Managers may develop strategies of manoeuvring between organizational levels that remain stable during a merger or restructuring and levels that are unstable.

Third, it is important to realize that the determinants of employees' identification differ between the overall organization and lower organizational levels such as divisions. On the lower organizational levels, communication climate plays a significant role. Whereas various earlier studies have focused on the communication about the merger, our results underline the relevance of communication climate in the post-merger situation. Employees' perceptions of open and honest communication after an organizational restructuring seem to have a major influence on their identification with the organization. As in the post-merger situation, pre-merger communication climate appears to correlate strongly with pre-merger division identification. Since pre-merger identification is also an important determinant of post-merger identification, we would recommend to monitor the communication climate in organizational (sub)units on a regular basis. On the higher organizational level, PEP appears to be relatively important. For this type of identification, organizations should focus more on (internal) reputation management.

Limitations

One limitation of this study concerns the generalization of the results. First, we only collected data within one particular type of organization. Universities can be characterized as rather bureaucratic organizations with many highly specialized professionals. Similar research in different types of organizations would be needed to replicate our findings. Second, we only collected data at one university. However, it must be stressed that we investigated two separate internal merger processes in the university, that the two divisions could be seen as independent (sub)organizations, and that the results of the two divisions showed a strong similarity. Third, it is important to realize that the merger under study was a merger of divisions, not of independent organizations. The findings do not necessarily apply to situations of mergers between separate organizations.

A general flaw in longitudinal field research is the possible influence of time itself. Between the two measurements, respondents were lost due to turnover, retirement or lay-offs during the research period. However, no significant differences on all variables at T1 were found between respondents and non-respondents at T2, which does not imply the risk of non-respondent bias in this study. Furthermore, during the research period, several uncontrollable events may have had an impact on the process of identification. Uncontrollable events are more the rule than the exception during merger and restructuring processes. In our study, one particular event stood out: one of the buildings of the university was destroyed by fire one month after the first measurement. As a result, several respondents lost their office and (parts of) their belongings. An event like this may have had an impact on employees' identification with the faculty or the overall organization. However, in an analysis comparing the respondents who were directly involved in the fire and those who were not, no significant differences were found at T2, which was more than 2 years after the event.

Directions for future research

In line with our main conclusions we suggest that future research into the role of identification at different organizational levels in pre- and post-merger situations would be of interest to shed more light on the results of (internal) merger processes. Specifically, the way overall and division or work-group identification processes interact

with each other seems to be a relevant direction for future research. It is quite feasible that both bottom-up (in which lower-level identification affects higher-level identification) and top-down (in which higher-level identification affects lower-level identification) processes may occur. This is particularly of interest in merger situations where employees' identification with stable organizational levels may facilitate their identification with the merging units. Future longitudinal research, preferably with more than two measurements, could focus on the role that stable sub- or superordinate levels play in merger or restructuring situations.

In our study, we focused on internal and external communication variables before and after an internal merger as determinants of organizational identification. Together, these variables appear to explain a large amount of variance of post-merger identification. Other studies have focused primarily on merger characteristics, such as intergroup distinction, status, communication about the merger, and sense of continuity, which have also proven to have an impact on identification processes (e.g. Bartels *et al.*, 2006; Terry, Carey, & Callan 2001; Terry & O'Brien, 2001; Van Dick *et al.*, 2006; Van Knippenberg *et al.*, 2002). Future research should combine the two perspectives and compare the effects of pre-merger organizational characteristics, post-merger organizational characteristics, and merger characteristics.

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