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Sustainable Change

Long-Term Efforts Toward Developing a Learning Organization

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Globalization and intensified competition require organizations to change and adapt to dynamic environments in order to stay competitive. This article describes a longitudinal action research study supporting the strategic change of a trading company. The strategic change was accompanied by planned changes in organizational structures and processes, management systems, emerging changes in leadership, and organization members' attitudes and behaviors, and it was supported by management development activities. Longitudinal data over a 4-year period including participant observation and interviews reveal that a systemic approach, a learning and becoming perspective toward change, trust, an appropriate role perception, and the specific use of management instruments contribute to sustained change that resulted in performance improvements and a move toward a learning organization. We conclude with implications for strategic change and suggestions for further research in this area.

Keywords: strategic change implementation; action research; longitudinal study; survey feedback; role perception; trust; learning organization

Strategic change is a prerequisite for companies to survive in an increasingly competitive environment. Internationalization, fast-changing customer needs, intense competition, technological changes, and, as a consequence, uncertainty and complexity are salient environmental characteristics that managers face today. To maintain their competitiveness and viability, firms need to continuously adjust by initiating and implementing changes. Measures taken to that end involve strategic alliances, mergers and acquisitions, outsourcing, downsizing, and process optimization. The challenges of strategic change efforts have been addressed in the organization and management

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literature (e.g., Doppler & Lauterburg, 2000; Glor, 2007; Kirsch, 1997; Kotter, 1995). Resulting insights suggest that the facets of change are well understood and that research results provide guidelines for planning and managing sustained change in practice.

Recent research indicates, however, that success rates of change efforts are fairly low (e.g., Collins, 2001) due to conflicting group identities (McInnes, Beech, de Caestecker, MacIntosh, & Ross, 2006), leadership behavior (Bommer, Rich, & Rubin, 2005; Higgs & Rowland, 2005), inertia deriving from a company's resource position (Kraatz & Zajac, 2001), a lack of shared vision (Ellsworth, 2002) including powerless coalitions (Kotter, 1995), or myopia concerning the interdependencies between an organization and its environment (Beer, Eisenstat, & Spector, 1990).

These findings suggest that the field still lacks understanding of the dynamics involved in strategic change, partly due to a lack of longitudinal data and the inclusion of time and history as relevant aspects (Pettigrew, Woodman, & Cameron, 2001). These aspects are increasingly considered in more recent research on, for example, sense-making in different phases of organizational change (Balogun, 2007; Balogun & Johnson, 2004; Stensaker, Falkenberg, & Grønhaug, 2008), influences on postacquisition integration (Vaara, 2003), emotion-management patterns in the context of middle managers (Huy, 2002), and the role of different leadership styles (Bommer et al., 2005; Denis, Langley, & Cazale, 1996).

Our study contributes to this growing body of longitudinal research by investigating the following questions: (a) How does strategic change unfold over time including the role of managers' conception of change, change supporting activities, and organization members' attitudes toward change? (b) Which role does employees' trust in their supervisors and management play in a change effort? (c) Which factors influence the sustainability of change from the stage of its initiation to its implementation and institutionalization? We present the results from a longitudinal study of the strategic change initiative of a trading company headquartered in Germany. The initiative included a planned change in strategy and structure, the introduction of a new mission statement and corporate guidelines, and changes in management instruments. Supporting activities were undertaken in one division to implement the strategic change successfully.

In the following sections, we first address different perspectives of strategic change and position our research. The Method section includes a description of the research setting, our action research approach, the change initiatives, data collection instruments, and change supporting activities. We then describe and discuss the results of our longitudinal study, outline implications for practice, address the study's limitations, and suggest directions for further research.

Different Perspectives of Strategic Change

Rajagopalan and Spreitzer's (1996) extensive review of the literature on strategic change identifies three different schools of thought: the rational, the learning, and the *cognitive* perspectives. In addition, a fourth stream of literature has emerged that we term the school of organizational becoming (e.g., Clegg, Kornberger, & Rhodes, 2005; Tsoukas & Chia, 2002).

The rational perspective considers change to be a single event and sequentially planned process. According to this view, changes in the environment directly affect the strategy content. The success of change efforts is mainly measured by using financial performance indicators (Rajagopalan & Spreitzer, 1996). Given its focus on a single event in time, the sustainability of a change effort cannot be addressed from this perspective.

The learning perspective conceptualizes change as an iterative process. Strategic change refers to changes in the strategy content and in environmental and organizational conditions as a corollary of the change initiative. This research stream opens the black box of managerial processes dealing with change. The studies conducted from this perspective reveal consistent findings concerning the success of strategic change. Results indicate that strategic change efforts are related to improved performance when accompanied by changes in personnel (Clapham, Schwenk, & Caldwell, 2005; Meyer, 1982), organizational structures, and processes (Simons, 1994).

The cognitive perspective also considers strategic change to be iterative. In addition to the learning perspective, it includes managerial cognition as an important antecedent of strategic change. Viewed from this perspective, a firm's environment is not objectively given but perceived and enacted by managers. This school of thought distinguishes between evolutionary and transformational change, the latter involving major changes in organizational ideologies and theories in use. The few studies conducted on the basis of this framework have combined analyses of organizational change with performance indicators (Rajagopalan & Spreitzer, 1996) that, however, do not render information on the degree of change sustainability.

The more recently evolved school of organizational becoming argues that change is not a single event (Clegg et al., 2005; Tsoukas & Chia, 2002). Instead, organizations are seen to be in constant flux, never reaching a state of equilibrium. For example, the study by Clapham et al. (2005) reveals that organizations continually make incremental adjustments along with periods of considerable readjustment. Weick and Quinn (1999) suggest that to create awareness of this kind of understanding of change, it is necessary to re-language change into a more active term such as changing. The idea of organizations being in constant flux is also promoted by Orlikowski's (1996) work on improvisation or the contribution by Clegg et al. (2005) on "organizational becoming." Table 1 summarizes the core characteristics of the four perspectives of strategic change.

These perspectives not only constitute theoretical strands that influence how organizational change is perceived and conceptualized from a research perspective but also describe the multifaceted practice of organizational change that is enacted by members of an organization (Balogun & Johnson, 2004). Hence, instead of drawing on a single perspective of change, we assumed that organizational members' perceptions of change may vary and develop as the change process unfolds over time (Research Question 1).

Table 1 Perspectives of Strategic Change

Perspective of Strategic Change	Characteristics	Measurement	
Rational perspective	 organizational change is a planned and sequential process environment directly affects content of company strategy change is a singular event 	Financial performance indicators	
Learning perspective	organizational change is an iterative process strategic change encompasses both the content of strategy and environmental and organizational conditions managerial processes related to organizational change are considered	Changes in personnel, organizational structures, and processes	
Cognitive perspective	organizational change is an iterative process managerial cognition is an important antecedent to change distinction between evolutionary and transformational change	Changes in ideology and theories in use	
Organizational becoming perspective	 organizations are in a state of constant flux, never reaching a state of equilibrium change is not a single event change is inherent in human behavior, in sensemaking, and in the process of organizing 	Changes in interpersonal beliefs, relations, and actions	

Prerequisites for Strategic Change

Several studies have shown that for change to be sustainable, efforts need to lead toward a learning organization that is capable of continuous self-reflection and learning, supported by a collectively shared vision and flexible structures and processes (Garvin, 1993; Pedler, Burgoyne, & Boydell, 1996; Senge, 1990). This implies that to achieve sustainable change, change efforts need to consider and address different organizational aspects simultaneously, such as strategy, structures and processes, managerial systems and instruments, leadership, and culture (Beer & Nohria, 2000; Friedlander & Brown, 1974; Nadler & Tushman, 1980). Confirming this argument, research on strategic change (Bate, Khan, & Pye, 2000; Mintzberg & Westley, 1992) and organizational failure (Probst & Raisch, 2005) suggests that a major reason for unsuccessful change may be a close-minded or limited focus on one or at best some of the aspects mentioned above in addition to a short-term approach to change and time pressure. Similarly, change efforts not anchored in an organization's culture are unlikely to last (Scott-Morgan,

1995). In their recent study of organizational failure, Probst and Raisch (2005) identified five major factors of unfavorable developments that contribute to failure: growth, change, leadership, organizational culture, and an organization's inability to keep these factors in balance.

Employee Attitudes and Organizational Change

Major organizational changes such as restructuring and downsizing involve risk and contribute to an individual's feeling of vulnerability (Swanson & Power, 2001). Vulnerability and the willingness to accept this risk are characteristics of trust (Mayer, Davis, & Schoorman, 1995) that play a central role in employees' reactions to change initiatives (Eby, Adams, Russell, & Gaby, 2000). Management decisions with negative consequences for employees and structural reorganization are thus likely to result in decreasing trust of employees in management, or even in distrust (Morgan & Zeffane, 2003). In addition, the level of emotional strain experienced by employees and the extent to which they are allowed to participate in a change initiative affect their trust in management (Lines, Selart, Espedal, & Johansen, 2005) and the fairness with which employees are treated (Colquitt, Wesson, Porter, Conlon, & Ng, 2001). In turn, employees' trust in management constitutes a key variable affecting employees' attitudes toward change (Albrecht, 2002; Condrey, 1995; Gomez & Rosen, 2001; Kotter, 1995; Oreg, 2006; Rousseau & Tijoriwala, 1999; Schneider, Brief, & Guzzo, 1996; Stanley, Meyer, & Topolnytsky, 2005).

The quality of the relationship between employees and their direct supervisors (van Dam, Oreg, & Schyns, 2008), and in particular employees' trust in their supervisors, was also found to play an important role in preventing cynicism toward change (Albrecht, 2002) as well as in encouraging employees to support change (Edmondson & Woolley, 1999; Larkin & Larkin, 1996) and to be emotionally committed to the organization during organizational change (Neves & Caetano, 2006). In turn, organizational commitment was found to be connected to several aspects of organizational change such as how fair and favorable the change is perceived (Fedor, Caldwell, & Herold, 2006), employees' readiness for change (Madsen, Miller, & John, 2005), and cynicism about organizational change (Wanous, Reichers, & Austin, 2000). Furthermore, the quality of leader-member exchange seems to contribute to organizational commitment (Gerstner & Day, 1997), organizational citizenship behavior (Wang, Law, Hackett, Wang, & Chen, 2005), and organizational citizenship behavior that is specifically directed toward the support of change (Bettencourt, 2004).

Based on these findings, we hypothesized in this action research study that employees' trust in their direct supervisors plays an important role for achieving change (Research Question 2) and that leader-member exchange, organizational commitment, change-oriented organizational citizenship behavior, and attitudes toward change are important variables for achieving sustained strategic change (Research Question 3).

Method

Research Setting

The trading company ABA¹ is headquartered in Germany and distributes agricultural equipment, building materials, and do-it-yourself products with associated services. Since its founding in the 1920s, ABA has constantly extended its product range. In the early 1990s, it started to internationalize. The growth was accomplished by acquiring small and medium-sized companies in adjacent business areas and regions and by forming strategic alliances. Today, the group employs 15,000 people in several countries across Europe. The organizational structure was changed several times over the years to increase efficiency and support the firm's growth strategy.

At the beginning of the change process, the firm's culture was characterized by paternalistic, supportive, and caring leadership, with highly relational psychological contracts between the organization and employees. The firm's implicit commitments toward its employees included job security and lifelong employment, people-oriented leadership, and generous fringe benefits. In return, employees showed high affective organizational commitment, loyalty, and identification with the organization and its products. However, due to the paternalistic leadership behavior, employees tended to do what they were told rather than taking initiative themselves. In their daily behavior, they were only moderately cost-conscious and efficiency oriented and showed little willingness to take responsibility or initiate even small changes.

Faced with increasing competition, ABA's most recent strategic response was to expand internationally, restructure into three divisions, and decentralize its administrative services to increase its flexibility. As a result, ABA's administration department was divided into 14 local service centers, each of which had between 15 and 50 employees with responsibilities in accounting, controlling, and IT support. The centers offered their services exclusively to internal customers, the company's retail outlets. The implementation of the local service centers resulted in considerable changes affecting the employees' tasks, work processes, and work places.

At the same time, top management introduced a mission statement and corporate guidelines to better reflect and communicate what the firm wanted to become, informing all organizational members about ABA's new strategic orientation. The mission statement described the company's vision to be one of the leading European retail companies and service providers in its core businesses, based on customer orientation, flexibility, and efficiency. It included the corporate guidelines expressing the firm's expectations of appropriate employee behavior and addressing aspects such as securing future prosperity, focusing on customer needs, high quality products and reliable services, cost-consciousness as competitive advantage, active change management, employees as the basis of success, fostering and demanding excellence, and social responsibility. Shortly after the strategic change and the mission statement had been announced, a goal agreement process and a variable pay component were introduced and implemented.

The change was initiated by the top executive group and designed top down based on the rational change perspective described above. Their basic belief was that these initiatives were sufficient in bringing about the desired changes. They expected ABA managers to communicate and implement the mission statement and corporate guidelines in their areas of responsibility and employees would eventually adopt the above-described orientations and behaviors in their daily business. This responsibility was particularly challenging for Bill, the director of the newly created local service centers that were affected most by the change. Decentralizing the administration department involved a considerable reorganization of procedures and work processes with negative implications for the center managers who had to either relocate or travel extensively on a daily basis. Assuming a learning perspective of change, Bill assumed that information about the changes was not sufficient for bringing about change. Instead, he believed that he needed to move the culture of his division from its paternalistic orientation toward an orientation of delegating, taking initiative, accepting clear responsibilities, and continuous improvement. He also realized that his center managers needed support for such a change.

Action Research Process

Right after the announcement of the strategic and structural changes, Bill contacted the first author, who had worked with him before. He was concerned about the morale of his managers and employees after the announcement of the decentralization and afraid of a loss in productivity. After an in-depth discussion, he made a commitment to a longer term development process based on an initial assessment of people's concerns and development needs. Based on Bill's information, our knowledge of the company and its culture, and the relevant literature, we hypothesized that the amount of trust between managers and employees, as well as their commitment to the company, could counterbalance and overcome the negative consequences of change. We suggested and agreed on an upward feedback process (including Bill) and developed a survey instrument that was based on existing knowledge of the field and that would help in understanding employees' and managers' concerns as well as development needs with regard to the change.

In our role as action researchers, we strived to support Bill in this change process not only in dealing with the immediate structural changes but also in changing the culture by encouraging the system in question "to 'learn' or 'research itself through' the issues which it faces" (Bawden, 1991, p. 26) on the basis of a becoming change perspective. As a consequence, we provided feedback on the members' perceptions and attitudes, thereby stimulating critical self-reflection and exploration for better ways to act on and improve their areas of responsibility. These feedback sessions included information on and discussion of the survey results of their service centers. We explored potential interpretations and development activities, both at the individual and the center level. In this process, we focused on observed employee perceptions and attitudes and the managers' self-reflections with regard to their own leadership behaviors. We discussed discrepancies between employees' perceptions of their leader's behavior and the supervisor's self-ratings and explored possible reasons for major discrepancies.

In a coaching role, we encouraged managers to critically reflect on their own behavior and explored areas for further development in their managerial role. In addition, we asked them to conduct a workshop with their subordinates. In these workshops, the center managers presented and discussed the survey results and explored activities to further develop their centers and tackle identified problems together with their employees. These workshops were facilitated by an internal consultant. We also encouraged the managers to discuss their insights and reflections and decide on initiatives with their superior. The respective development initiatives were then included in the managers' goal agreements for the next year and regularly reviewed by Bill. The aggregated results were presented to the top management group and the steering committee. The survey feedback process was designed in cooperation with a steering committee including the workers' council representatives. We report three data collection cycles spanning a period of 4 years.

Change Supporting Activities

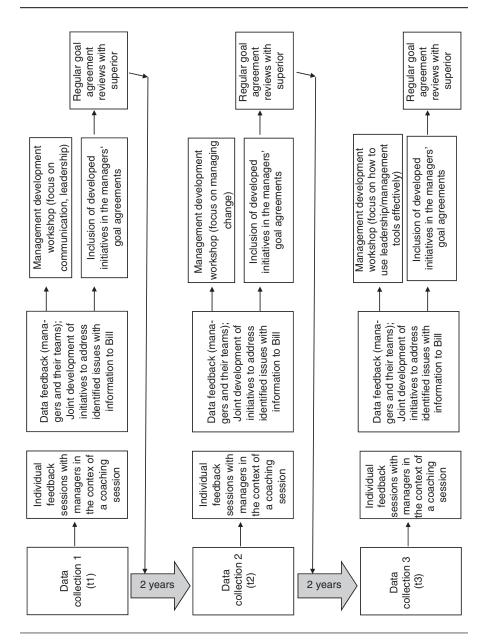
In addition to the individual feedback sessions and the presentation of aggregated results to Bill, the top management group, and the head of the workers' representation, we conducted management development workshops for all managers of the new service centers with a focus on those topics that had surfaced as concerns to all of them. All managers took part in these development workshops that were intended to support them in their implementation of the change. The survey results and discussions with managers during the first upward feedback process revealed that communication and leadership were critical issues for people. Hence, we designed and conducted workshops that addressed these topics. Both workshops contained self-assessment instruments and focused on improving personal leadership and communication skills. In addition, difficult situations at work were discussed and different ways were explored in how to handle them effectively.

After the second survey feedback process, development workshops concentrated on managing change effectively and addressing critical situations in the change process. The third series of workshops focused on the effective use of management instruments such as goal setting, performance appraisal, and feedback. In addition to these workshops, Bill assumed a coaching role in supporting his managers. Figure 1 presents an overview of the action research process including the three survey feedback processes and the activities designed to support the entire change process.

The Survey Instrument and Performance Indicators

Two comparable versions of a customized survey instrument were developed to surface both the employees' and the managers' perceptions. Based on the relevant literature

Figure 1
Overview of the Action Research Process



and our preliminary assessment of the organization's specific needs and resulting hypotheses, we decided on six dimensions for the questionnaire: leader-member exchange, employees' trust in their supervisor, affective organizational commitment, continuance commitment, initiative behavior, and attitude toward change. We measured leader-member exchange (Graen & Uhl-Bien, 1995) with a seven-item scale used by Liden, Wayne, and Stilwell (1993). Employees' trust in their supervisors was measured with seven items based on Butler and Cantrell (1984) and Cook and Wall (1980). Affective organizational commitment, "the employee's emotional attachment to, identification with, and involvement in the organization" (Meyer & Allen, 1991, p. 67), was measured with four items based on McGee and Ford (1987). Continuance commitment, the employees' "awareness of the costs associated with leaving the organization" (Meyer & Allen, 1991, p. 67), was measured with four items based on McGee and Ford (1987). Initiative behavior (a core dimension of organizational citizenship behavior) was measured with five items based on a German scale (Staufenbiel & Hartz, 2000). Attitude toward change was measured with three items from the Specific Attitude Toward Change scale (Lau & Woodman, 1995).

In the second data collection phase, additional questions were included to evaluate the degree of implementation of the mission statement. An internal customer satisfaction survey was added in the third data collection phase. All dimensions were measured using 6-point Likert-type scales.²

We used several outcome measures to assess the performance of the change process. These include the center managers' degrees of goal achievement, the evaluation or the implementation of their development initiatives (based on the survey results), and employee initiatives at t1 and t2. Additional data about costs or sales could not be used because ABA's mode of record keeping changed over the 4-year period.

In addition to collecting these quantitative measures, we conducted narrative interviews with managers at different levels. We assessed management's conceptualization and framing of the change based on our observations of their actions and a content analysis of the interviews.

Data Collection Process

The first survey feedback process was initiated with a kick-off meeting. We explained the goals, procedure, and process to the service center employees who had been informed about the strategic change. The major goals of this meeting were to develop trust, ensure anonymity, and involve the center managers in the process. The survey instrument was handed out to them after the meeting. Initially, the survey feedback process was designed as a 180-degree feedback. It evolved into a 270-degree feedback including customer perceptions in the third data collection cycle.

Two hundred twenty-five of the 318 questionnaires were returned at the first data collection (t1), resulting in a response rate of 70.8%. At the second (t2) and third (t3) survey cycles, response rates were 74.6% (235 out of 315) and 85.3% (267 out of 313 questionnaires), respectively. At t1, the age ranged from 16 to 59 years (average = 34.2

years; SD = 12.3 years), and 155 (73.5%) were female. Average job tenure was 14.3 years (SD = 11.6 years). Most employee respondents (74.0%) had completed an apprenticeship as their highest educational degree, 3.2% had a graduate university degree, 1.6% had completed some other type of education, and 21.2% did not indicate their educational level. This composition of respondents remained about the same over the three data collection periods.

Results

Table 2 shows the overall (unmatched) results of the seven measured variables at t1, t2, and t3. Reliability scores for all scales at all three data collection periods were satisfactorily high, allowing us to use scale averages as indicators of the respondents' perceptions and attitudes.

Baseline Survey at t1

The data indicate that the majority of the responding employees rated the exchange relationships with their superiors (M = 4.66), trust in their superiors (M = 4.98), and affective organizational commitment (M = 4.30) rather high at t1, despite the change. Continuance commitment (M = 3.14), organizational citizenship behavior with a focus on "taking initiative" (M = 4.25), and employees' attitudes toward being involved and participating in the strategic change (M = 4.35) were similarly high.

Assessment of Attitude and Behavioral Changes Over Time

Two years after the initial survey feedback phase and change supporting initiatives, the data collection and feedback process was repeated using the initial survey instrument including questions about the degree of perceived strategy implementation. The response rate was 74.6%. Analysis of variance revealed that the scale means had remained at their initial levels with a slight decrease in continuance commitment. To further explore the results, we again conducted individual feedback and coaching sessions with the center managers. They were asked to subsequently report and discuss their center results with their subordinates in specifically designed workshops and develop actions for improving their area of responsibility together with their subordinates. Based on the results, we designed and conducted a 2-day development workshop with Bill and the center managers on the topic of managing change. The workshop focused both on deepening their understanding of a change process and on their development of specific actions. These became part of their goal agreements and were subsequently reviewed by their superior, Bill.

The third survey feedback process was conducted 2 years later (4 years after the initial one). Given the learning orientation that had developed, the feedback process was extended to a 270-degree design, including feedback from internal customers. The

Cronbach Levene Post Ho							Post Hoc	
Scale	ta	Alpha	M	SD	Test ^b	F^{c}	$\chi^{\rm 2d}$	Analyses
Leader–member	t ₁	.88	4.66	0.74	6.34**	(1.94)	3.32	_
exchange	t_2	.94	4.55	0.99				
	t_3	.94	4.50	0.95				
2. Trust in supervisor	t_1	.81	4.98	0.74	2.00^{\dagger}	3.00	9.15*	t_3
	t_2	.89	4.97	0.91				
	t_3	.81	4.82	0.81				
3. Affective	t ₁	.79	4.30	0.82	4.22*	(9.59**)	21.08**	t_3
commitment	t_2	.87	4.36	1.02				
	t_3	.88	4.65	0.93				
4. Continuance	t_1	.78	3.14	1.05	3.02	5.09**	9.56**	t_2
commitment	t_2	.79	2.93	1.21				
	t_3	.84	3.28	1.13				
5. Organizational	t ₁	.85	4.25	0.86	.22	8.29**	19.53**	t_3
citizenship	t_2	.89	4.41	0.92				-
behavior (initiative	t_3	.88	4.59	0.90				
behavior)								
Attitude toward	t_1	.64	4.35	0.80	1.41	4.20*	8.29*	t_1, t_2, t_3
change	t_2	.71	4.43	0.89				
	t_3	.65	4.57	0.82				
7. Implementation	t_2	.80	4.70	0.60	.30	8.99**	7.03**	_
of guidelines	t_3	.82	4.87	0.56				

Table 2 Means, Standard Deviations, Scale Reliabilities, and Analysis of Variance (ANOVA) Results for t. t., and t.

response rate increased to 85.3%, partially due to Bill's voiced expectation of an 80% response rate that he had made part of their goal agreement.

At first glance, a comparison of the survey results conducted over the 4-year period suggests no positive effect on employee perceptions and attitudes. Dimensions referring to manager-employee relationships did not change over time. Leader-member exchange was rated 4.66 on average at t1, decreased to 4.55 at t2, and decreased to 4.50 at t3. These differences are not significant ($\chi^2 = 3.32$, n.s.). The employees' trust in their superiors also decreased over the 4-year period, starting from a high mean of 4.98 on the 6-point scale. The decrease to 4.82 was statistically significant ($\chi^2 = 9.15, p < .05$). Continuance commitment showed a significant decrease at t2 and increased again at t3. Overall, the analysis of variance revealed significant differences (F = 5.09, p < .01).

a. t_1 , t_2 , and t_3 = Surveys 1, 2, and 3, respectively.

b. Levene test for homogeneity of variances.

c. One-way ANOVA. (F values in parentheses used to assess the significance of the results.)

d. Kruskal-Wallis Test.

e. Duncan Test: Results indicate between which surveys significant changes were observed.

 $^{^{\}dagger}p < .10. *p < .05. **p < .01.$

Given the personal implications of the strategic change, we considered the employees' affective organizational commitment, their initiative-taking behavior, and their attitudes toward change as particularly important. Both employees' affective organizational commitment ($\chi^2 = 21.08$, p < .01) and their initiative behavior (as a core dimension of organizational citizenship behavior) (F = 8.29, p < .01) increased over time. This increase was significant from t2 to t3. In addition, employees' attitudes toward the strategic change, measured as their willingness to actively participate in the implementation of the change initiative, showed a significant increase from t1 to t2, and from t2 to t3 (F = 3.20, p < .05). At t2 and t3, employees were additionally asked to rate the degree to which ABA's new mission and strategic change had been implemented in the daily business. These ratings showed a significant increase (F =8.99, p < .01).

Assessment of Performance Improvements and Change Implementation

The indicators that we used to assess the sustainability of the changes over the 4-year period showed a positive development. The degree of goal achievement improved from t2 to t3 even though the content of the center managers' goals had become more ambitious. Figure 2 presents the degrees to which the center managers had achieved their goals in the previous periods. The results for t2 show that some of them achieved their goals entirely, whereas others did not. At t3, all managers had achieved or even overachieved their goals and their degree of goal achievement had increased as well.

To assess employee initiative, we used the number of suggestions for improvement that employees had made in the years of t2 and t3. The number of employee suggestions increased in that period from 122 at t2 to 154 at t3 (see Figure 3).

Insights From Executive Interviews and Participant Observations

After the third data survey feedback process, we conducted narrative interviews with Bill and the vice president of human resources (VP HR), who was responsible for the service area and another organizational unit. The insights gained from the interviews about the change process are categorized into five sections: executives' changing perspective of change, interpersonal relationships between managers and employees, managers' role change and orientation toward improvement, employee attitudes and behaviors related to organizational change, and the managers' level of professionalism in their managerial role.

Executives' changing perspective of change. The interviews with these top leaders revealed valuable insights into both their perceptions of the change process and their perspectives of change. Both top leaders had developed in their change perspectives.

120 115 110 105 100 Average 95 90 85 80 t2 t₃

Figure 2 Center Managers' Goal Achievement Degrees

Note: The figure shows the developments of the center managers' individual as well as average goal achievement degrees in percentages between t₂ (2 years after the initiation of the strategic change) and t₃ (2 years after t₂). Note that only the data of those center managers were included who were in charge of an administrative center during the entire time period.

Based on content analysis of the interviews using the four change perspectives (rational, learning, cognitive, and becoming) as categories as well as our participant observations, Bill had moved toward the becoming perspective and the VP HR from a rational approach to change toward a learning perspective. Although Bill had been very anxious in the past to plan the next steps in the change process, he was now starting to rely on his managers to initiate appropriate actions in their area of responsibility and considered himself increasingly as an enabler in a process of continuous improvement. The VP HR as part of the top team had decided about the strategic change without recognizing the need for support in the process. When he started to see the differences between ABA's divisions, he wanted all divisions to become like Bill's. Because he attributed the difference to the survey feedback, he wanted to conduct an employee survey for the entire company at t2. The first author finally convinced him in several conversations that the company was not yet ready for this intervention and that the noticeable difference between Bill's department and other departments in the organization was based on a development process in which the survey feedback was

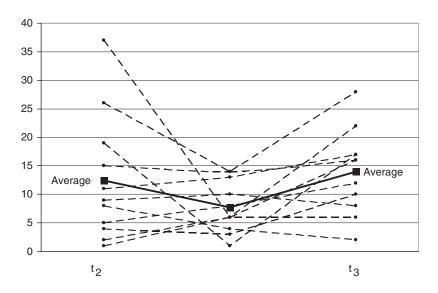


Figure 3 **Number of Employees' Improvement Initiatives**

Note: The figure shows the development of the number of initiatives for improvement taken by employees in each service center and the average number of initiatives per service center between t₂ (2 years after the initiation of the strategic change) and t₂ (another 2 years later). Note that only the data of those centers that participated in all three surveys are included.

only the initial step of a development process. The VP HR agreed to extend the process, rather than a single intervention, to his other division before involving the entire organization.

Interpersonal relationships between managers and employees. At the time of the interview (after t3), the VP HR, who had insights into all divisions of ABA, characterized communication in Bill's unit, compared with the other divisions, as much more open, with a higher level of trust between managers and employees. In addition, he perceived much more willingness to address critical issues and conflicts when compared with the other divisions of ABA. At first glance, this characterization appears somewhat contradictory when compared with the survey results that show slightly reduced trust levels over the 4-year period. The absolute values of employee trust in their superiors were, however, surprisingly high at t1 immediately after the introduction of the organizational change.

Managers' role change and orientation toward continuous improvement and ownership. Both top leaders mentioned that the service center managers showed more efforts to actively support and initiate development activities concerning their employees and processes. They characterized center managers as having changed from administrators to real managers. They had started to coach their employees, thus making better use of their talents and potentials. In addition, center managers improved their area of responsibility on an ongoing basis. According to Bill, this behavioral change had contributed to noticeable performance improvements and cost reductions in the service centers. Due to their new role perception and execution, center managers not only accepted a variable component in their pay scheme, but some of them asked for a higher percentage of variable pay even though their goal agreements had become more challenging over the 4-year period. Bill explained that the center managers had become not only committed to but even enthusiastic about their managerial roles and their responsibility during the 4 years of implementing the strategic changes.

Employee attitudes and behaviors related to change and continuous improvement. Employees responded to changes in a more positive way and had started to actively initiate changes in their workplaces more often and frequently than before and also more frequently when compared with other divisions of ABA.

Professionalism and qualifications. The VP HR mentioned that the level of professionalism and qualification had substantially augmented in this business area. He perceived it being significantly higher when compared with the other divisions. He was especially enthusiastic about the qualifications and the professional behavior of the center managers in their role as managers and leaders.

These findings suggest that a change in culture had taken place. The previously paternalistic culture had changed into one in which employees were allowed and expected to take initiative and they did take initiative, contributing with their knowledge and talents.

Some Positive Side Effects Accompanying the Change Process

Even though a share price is influenced by many factors, it is interesting to note that the value of ABA shares increased from € (euro) 5.85 at t1 to € 16.2 at t3. Due to the downturn of global stock markets, ABA's share price decreased from € 8.25 1 year prior to t1 to € 5.3 several months after t2. This equals a loss of 35.7%. ABA benefited above market average (the Small Companies Index rose by 51%) from buoyant stock markets in the year between t2 and t3, resulting in a share price of \in 13.2, an increase of 154%. In the following 2 years, the ABA share increased further by 22.7%, resulting in a share price of € 16.2 at t3.

Discussion

The results of this longitudinal study support the change literature in that a successful change effort needs to address all relevant areas of a firm. The reported change process included changes in strategy, structure, management instruments, leadership, employee orientation, and the organization's culture context. The study also revealed the role of management's change conception, change supporting activities, and attitudes toward change and identified critical enablers and sustaining conditions for lasting change. Whereas the strategic change process was planned on the basis of a rational approach, change-supporting activities in the service area were initiated from a learning perspective. These change supporting activities helped implement the change with lasting effect. In this process, we found that trust and commitment play an important role as well as the co-evolution of management's change perspective and attitude toward change, which resulted in center managers' different role perception.

Hence, this study makes several contributions to the literature on organizational change including the identification of enabling and sustaining conditions for lasting change.

Co-Evolution of Change Framing and Attitudes Toward Change

Although the executive board had made its decision about the strategic change from a rational change perspective based on the belief that its communication would suffice, the implementation of the strategic change was most successful and lasting in the division that was affected most by the change. This can be explained by the division director's learning change perspective. Based on his belief that the change process needs to be seen as an iterative process in which the management's commitment plays an important role and that structures, processes, and people need to be aligned, he initiated change supporting activities. Neither the executive board members nor the other division directors perceived a necessity for change supporting activities at that time. Given the positive results of the change process in the service division, Bill's perspective toward organizational change further developed over time. He realized that the current change process was not a singular event; instead, it was embedded in an overall process of continuous change, thus moving toward an organizational becoming perspective. Without his initial learning perspective of change, Bill would probably have acted in line with his colleagues, just announcing the changes without initiating supporting activities.

At the same time, his superior, the VP HR, developed from a rational to a learning perspective toward change. This mental change resulted in extending the culture change process to another division, moving the company slowly away from a rational approach to change with a check-box mentality (e.g., "We have informed our people about the new leadership guidelines") toward a second order change in which basic assumptions are changed. This development process was supported by our role as action researchers. Among other things, we tried to stimulate critical self-reflection concerning the change process both in the workshops and in personal meetings.

As Table 3 indicates, the top executives' change framing co-developed with the improvement of employee attitude toward change. When the change was initiated at t1 in a top down, rational manner, employees showed a moderately favorable attitude toward change. This attitude significantly improved from t1 to t3, measured in terms of their change initiatives in the workplace. In addition, the center managers' attitudes toward change and their managerial role significantly changed over time from administrators to real managers.

A becoming perspective to change implies embracing ambiguity and uncertainty as inherent characteristics of organizational life. The observed co-developments of management's change framing and organizational members' attitudes toward change can be interpreted as an increasing tolerance of ambiguity. This is supported by managers' asking for a higher percentage of variable pay and by the increasing number of improvement suggestions made by employees. Accepting ambiguity and leveraging opportunities is an important prerequisite of lasting change that is institutionalized in the context of a learning organization.

Employees' Trust and Other Attitudes Toward Supervisors and the Organization

Survey results indicate consistently high levels of leader-member exchange throughout the 4-year period. The same applies to the employees' trust in their supervisors. However, trust decreased at a statistically significant level between t2 and t3. This is particularly interesting because affective organizational commitment and organizational citizenship behavior significantly increased during the same time period. This finding can be interpreted from different perspectives (e.g., Golembiewski, Billingsley, & Yeager, 1976; Piderit, 2000). First, it may have been caused by an instrumentation effect. Because most employees had never participated in an employee survey before, they had no prior experience in rating superiors' behaviors. The changes in the reported ratings of trust from t1 to t3 4 years later may be a result of the employees' increasing familiarity with the procedure of assessing another person's trustworthiness or the fact that their goals had become more challenging over the years. Second, the observed decrease in trust could also be due to a learning effect in that employees had become increasingly sensitive toward the issues addressed in the questionnaire and may have developed a more differentiated view as well as higher expectations. Third, the change may have caused ambivalent reactions in employees (Ford, Ford, & D'Amelio, 2008; Piderit, 2000) that surfaced in inconsistent changes in attitudes toward the change process, the organization, and those perceived as change agents (i.e., the employees' supervisors). The fact that the only other variable that decreased over the 4-year period, although not significantly, was leader-member exchange supports this interpretation.

	\mathbf{t}_1	t_2	t_3
Change framing	Rational and learning perspective to change		learning and becoming perspective to change
Managers' attitude toward change	Administrators	▶	 real managers broad acceptance of variable pay scheme
Employees' attitude toward change	Moderately favorable attitude toward change (4.35)	Significant increase in favorable attitude toward change (4.43)	 significant increase in favorable attitude toward change (4.57) actively initiating changes in workplace more change initiatives compared with other divisions

Table 3 Co-Evolution of Change Framing and Attitudes Toward Change

One could argue that the significant decrease of the employees' initially favorable attitudes, especially trust toward their supervisors, reflects employees' acceptance of the realities of the change. Although employees had a cognitive understanding of the change at the time of the introduction of structural changes, they may have emotionally experienced the real effect of these changes with a time lag. The results with regard to organizational commitment and initiative behavior, as well as the employees' willingness to actively participate in the implementation of ABA's strategic change process, support this line of argument. The ratings in these dimensions increased significantly over the three measurement points in time.

The increase in standard deviations suggests differences in perceptions and evaluations of initiatives between employees. Some of the strategic and structural changes had clearly negative effects on some of them, such as a much longer daily commute to work. The fact that standard deviations increased between t1 and t2, but decreased again between t2 and t3, can be interpreted in line with Lewin's (1947) three-stage model of unfreezing, changing, and (re)freezing³: The organization members' perceptions seem to have moved from a homogeneously comfortable stage (t1) to a stage of change and disintegration (t2), to finally return to a more comfortable stage of largely similar perceptions (t3). This argument is supported by the significant increase in the degree of perceived implementation of ABA's new mission statement and guidelines from t2 to t3.

The number of improvement suggestions made by employees shows an average increase with a variation across all service centers. The total number of suggestions increased from 122 suggestions at t2 to 154 suggestions 2 years later at t3. Because one of Bill's major change objectives was to increase employees' initiative and willingness to take responsibility for further developing their areas of responsibility, we interpret these results as another indicator of ABA's successful second order change process.

Data obtained from interviews with the two top leaders and participant observation support the above-reported results. The interviews revealed a change in culture in the service centers including both employees' and managers' orientations and observable behaviors. The interviewees emphasized that the strategic change and supporting development activities had resulted in a shift from a paternalistically oriented culture with highly committed but rather passive and inflexible employees toward a learning organization in which employees take initiative and continuously improve their areas of responsibility. The VP HR and Bill considered the change in role perception and professionalism of the center managers to be another major achievement. Rather than waiting to be told by their superior, center managers had started to take responsibility for initiating changes and managing and leading their areas of responsibility by using the strengths and potentials of their people. According to the VP HR, these changes were unique to Bill's division. The strongest indication for the success of the change process can be seen in the VP HR's decision to further extend the change supporting process to the other division in his area of responsibility. And, 2 years after t3, the VP HR convinced the executive board to extend the process to the entire company.

Enabling and Sustaining Conditions for Lasting Change

Our research findings reveal both enablers of change and factors that sustain change. One enabler is the change perspective discussed above. Others are the level of trust between superiors and subordinates, employees' affective organizational commitment, and managers' ability to critically reflect on their role. Consistent with existing research (e.g., Eby et al., 2000; Gomez & Rosen, 2001; Neves & Caetano, 2006; Oreg, 2006; Rousseau & Tijoriwala, 1999; Stanley et al., 2005), we found the level of trust between employees and managers to be a crucial antecedent for implementing the change successfully. The trusting relationships as well as their affective organizational commitment helped them act in times of uncertainty, work through difficult issues, and tolerate or bear negative aspects of change. They also enabled open communication between employees and management, being able to address problems and difficult issues when they occurred rather than waiting until they would escalate.

Another enabler of strategic change is the middle managers' ability to critically reflect on their role. Although their critical self-reflection can be considered a necessary antecedent for changing their role perception toward assuming more responsibility for the change process, we found that the resulting and more appropriate role perception is a condition for sustaining the change. Once center managers had changed their role perceptions, accepting the responsibilities of their managerial function, they became more active in initiating changes and taking an active stance toward further developing their area of responsibility.

Our findings suggest that the alignment, availability, and proper use of management instruments represent important sustaining conditions of a strategic change process. In alignment with the strategic and structural changes, goal setting and variable pay were introduced in the company. Bill used both instruments to refocus and then continuously focus managers' attention on those issues in need of change and further development. The variable pay component reminded managers that their daily work activities had direct implications for them at the end of the year and that they were responsible for what they initiated or improved. The goal agreement process had a similar function. Because all initiatives developed in the feedback sessions and workshops became part of their personal goal agreements, they remained in the managers' center of attention rather than getting lost in their daily operational business. This was critical for the changes to be sustained and embedded in a learning organization in which people have adopted an attitude of continuous improvement.

As a result of the 4-year change process, managers and employees developed a positive attitude toward change and improved their professionalism in their role as well as the performance of their area of responsibility, and top managers further developed their perspective toward change. All of these factors contributed to developing a learning organization with a change in culture sustaining the strategic change. Thus, its (re)freezing occurred at the stage of continuous change and learning. Figure 4 gives an overview of the change process with related dynamics.

Based on these findings, we suggest that change activities need to stay in the focus of those who are concerned with the implementation. The appropriate use of management by objectives and a performance-oriented reward system seem to be adequate instruments for reviewing and evaluating the progress of implementation.

Implications

The strategic change effort at ABA designed from a systemic yet rational change perspective was implemented in the service area on the basis of a learning and becoming change perspective. Such an approach helped develop a learning organization that is capable of changing itself on an ongoing basis. As such, continuous change becomes a way of being. Based on our findings, we suggest several implications for managing sustained strategic change. They imply the design, framing, enabling, and sustaining conditions for strategic change. These are summarized in Table 4 and can be used as a starting point for further research as well as for designing and implementing strategic change processes.

Our findings reveal the positive effects of pursuing a comprehensive approach by initiating strategy-aligned and strategy-supporting changes in structures, processes, management instruments, and leadership including employees' orientation. In line with recent research (e.g., Probst & Raisch, 2005), we suggest that a prerequisite for successful and sustainable strategic change is a comprehensive view and inclusion of all relevant areas in the change initiative. This requires a multifaceted intervention strategy that is known for outperforming social or "techno-structural" approaches to organizational change (Pasmore & King, 1978).

Figure 4 **Overview of the Entire Change Process**

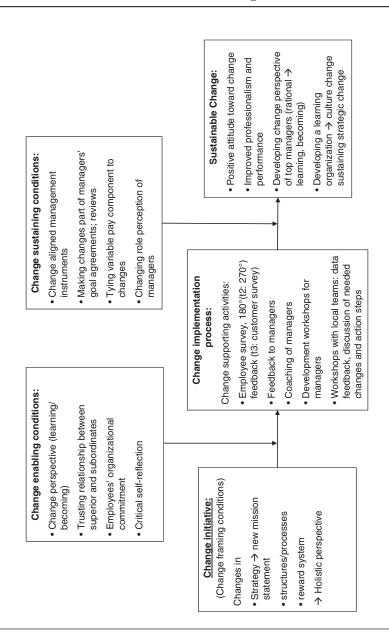


Table 4 Framing, Designing, Enabling, and Sustaining Conditions

	for Sustained Strategic Change
Driver of Sustainable Strategic	

Change framing conditions

Change

Systemic perspective of organizational change

Design of change program

Comprehensive approach to organizational change

Anchoring change in organizational culture

Enabling conditions

Fostering trust relationships and affective organizational commitment

Critical self-reflection Change sustaining conditions Availability and proper use of management instruments;

appropriate role perception

· acknowledge that strategic change cannot be driven by a purely rational top-down approach

Description

- acknowledge that organizations are constantly changing
- acknowledge that key stakeholders' attitudes and perceptions of the organizational change influence the success of the change process
- simultaneous change and alignment of structures, processes, management instruments, leadership behavior, and employee orientation
- strategic change needs to be grounded in the commonly held basic beliefs that guide organization members' behaviors and decision making → may need to change
- basic beliefs change in a collective learning process
- trust between subordinates and superiors enables open communication on critical issues and action planning
- trust relationships facilitate addressing and dealing with critical issues
- affective organizational commitment helps employees to cope with uncertainty
- · critical self-reflection enables learning and change
- management instruments (e.g., key performance indicators, goal setting, reward system) are aligned with the changes and help track the degree of implementation of organizational change initiatives
- · change-aligned management instruments ensure that management attention remains focused on the strategic change
- at each level and area of responsibility, organizational members need to assume the appropriate role; in our case, middle managers embraced the role of change agents, taking initiative and developing a sense of responsibility for change; employees took initiative in improving their workplaces by using their knowledge and talents

Furthermore, our results support the notion that sustained change needs to be anchored in an organization's culture (Bennis, 1969) and that the commonly held set of basic beliefs needs to be part of an organizational change to make it successful and

lasting (Albert, 2005; Clute, 1999). Such a change in culture is, however, only possible if designed change activities are implemented on the basis of at least a learning or becoming perspective of change. We consider this a framing condition for making sustained change happen. This implies a move away from a check-box mentality that is typical for a rational approach to change. The change in managers' and employees' role perceptions and behaviors as well as the subsequently initiated change efforts in other parts of the company indicate that a real change in the firm's culture has taken place.

Our research also revealed enablers of sustained change. These are the level of trust between superiors and subordinates, employees' affective organizational commitment, and managers' ability to critically reflect on their management approach and behaviors. The high level of affective organizational commitment and trust helped people move and work through the difficult times of the change process. It enabled increasingly open communication that allowed addressing and resolving difficult issues. The middle managers' ability to reflect on their own behavior helped them to change their role perception and finally enabled them to become more active, taking initiative and responsibility for their area and its further improvement.

Many well-intended change efforts fail or fade over time (Collins, 2001; Probst & Raisch, 2005). Our findings suggest that the availability and proper use of changealigned management instruments may help in sustaining change over time and institutionalize it as part of work. In this case, the goal agreement and follow-up process on agreed goals was crucial to keep the intended changes and developed actions in the managers' focus of attention. In addition, we suggest that the change was only as lasting because change oriented actions had been included in managers' goal agreement, their superior reviewed these goals consistently and persistently, and managers had assumed a more appropriate role perception that made them assume a true leadership role. Also, the variable pay component seemed to have a reinforcing and guiding effect for managers' attention.

Overall, data obtained from different sources revealed that all of the factors listed in Table 4 helped to develop a learning organization that has the capacity for self-reflection, continuous change, and self-renewal with positive performance effects.

Limitations of the Study and Suggestions for Further Research

Given the real-life context of our research, we faced several problems that limit our findings to some extent. With regard to the data collection, we had to make a few sacrifices given the interests of the firm and the length of the questionnaire. In addition, it was difficult to get access to officially recorded outcome measures that were comparable over the three data collection points. Cost or even sales figures could not be used because their way of record keeping was changed over the 4-year period, making them incomparable. Such data could have linked the strategic change process and supporting organization development activities to more objective outcome measures. The development of the share price is impressive but strongly influenced by exogenous factors

not related to the changes in administration services. In addition, other internal and external changes not known to us may have influenced the employees' perceptions and, hence, the ratings in the three data collection phases.

Although the strategic change involved the entire organization, we focused on one division because the supporting development process was only initiated by the head of this division. Hence, data and reported results are restricted to this area and cannot be generalized to the entire firm. However, a comparison between this and the other divisions as well as the results of a similar employee survey in another division after t2 support the above-described findings with regard to the development process of the unit under investigation.

Finally, the panel research design may have caused biased survey ratings, as the respondents' perceptions were likely to change due to maturation and learning effects. Prior to the first survey, most employees were not familiar with rating other people and thus may have felt insecure in rating their superior's behavior. We suspect that respondents developed a better and more differentiated understanding of their superior's behavior over the 4-year period. This may have resulted in higher expectations and an increased sensitivity toward these issues, leading to more critical ratings over time. These reasons may also help explain the observed decrease in the employees' trust in their superiors. Moreover, selection effects may affect the comparability of the surveys. Whereas the response rate at t1 was 70.8%, it increased to 74.6% at t2 and to 85.3% at t3. Employees who did not respond at t1 may have responded at t3 based on aspiration levels different from those of their coworkers who had responded at all data collection cycles.

Our longitudinal research sheds some light on essential factors involved in a comprehensive organizational change effort. Future research should further investigate and validate the framing, enabling, and sustaining conditions that we identified in this study (see Table 4). The interaction between these conditions, their relationship to change outcomes, and their influence in developing a learning organization need further exploration. Despite all of the problems involved, we encourage longitudinal field research using multilevel research designs and data collection methods combining qualitative and quantitative data to capture the dynamics of different change interventions. Such efforts will eventually tap into the dynamics of organizational change and develop a better understanding of the complex dynamics involved.

Conclusion

Our longitudinal study reveals how a strategic change initiated on the basis of a rational change perspective was successfully implemented in one organizational unit by taking a comprehensive approach to change that was complemented with change supporting activities based on a learning perspective toward change. The findings support the idea that planned strategic change efforts need to be linked to changes in structure and processes, the management system, leadership, and peoples' orientations and behaviors and anchored in the organization's culture. In addition, the need for change supporting activities was only recognized from a learning perspective of change. Change supporting activities seem to be necessary to stimulate a change process with lasting effects. A learning/becoming change perspective, affective organizational commitment, trust between superiors and employees, and managers' critical self-reflection were identified as important enabling conditions for the change. The appropriate use of aligned management instruments such as goal agreement and variable pay as well as the managers' more appropriate role perception sustained the change by keeping critical issues in the focus of managers' attention. All reported factors helped to develop a learning organization that has the capacity for self-reflection, continuous change, and self-renewal.

Notes

- 1. The names of the organization and its members have been changed.
- 2. The survey instrument is available from the authors upon request. Because we collected data on internal customer satisfaction only once, we do not report these data.
- 3. Even though Lewin used the term freezing in his original publication, the change literature seems to have adopted the term refreezing. We thank an anonymous reviewer for this remark.

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