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# Bringing on-site identities into the boardroom: A self-reinforcing mechanism in construction

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Manager J: "It is very hard to find a good construction worker and then teach him [sic] how to deal with numbers"

Researcher: "Why don't you find someone that already knows numbers and instead teach them about construction?"

Manager J: "That possibility never occurred to me!"

This short exchange took place during our field observations of strategy away-days (e.g. Hodgkinson et al, 2006) of a group of middle-level managers of a construction firm, discussing the problem of finding good recruits for strategic positions. It reflects most of the social aspects suggested by Sydow et al (2009) as important when researching self-reinforcing processes in organizations. Moreover, the exchange epitomizes a striking feature, which seems to be fairly unique in today's globalised economy; namely that there seems to be a strong relationship between a "good construction worker" and a "good manager".

Based on an ongoing longitudinal (from 2005) and interpretative empirically-based study of strategy processes and practices in a large construction organization, we use narrative analysis to explore the unfolding of what we see as a strong self-reinforcing process in construction.

Using the voices of a large number of managers at different levels of the organization, we provide a picture of how on-site mindsets (i.e. the good construction worker) make their way into the boardroom (strategic managers), via the collective identity of "being a construction worker".

#### Theoretical frame

Self-reinforcement is a conception that is used in many different domains. Within economics, it depicts a process with an accelerating feature: e.g., increasing returns, "earn, earn more" (e.g. Arthur, 1996), production concentration, "produce, produce more" (e.g. Krugman, 1999), or economies of scale "grow, grow more" (e.g. Rostow, 1956). In this sense it portrays a positive feedback. Within the domains of organizational life and sociology, it seems however, to have a slightly different notion – not necessarily representing any positive feedback (or negative), but rather as a way to understand organizational behavioral patterns.

Edmondson and Moingeon (1998) define organizational self-reinforcement as the process in which organizational routines are created and sustained by the decisions and actions of the individual actors. Rosenheck (2001) share the fundament of this notion but, instead of routines, using self-reinforcement in relation to organizational culture, stating that when experiences and challenges are shared, a community if practice is developed, on the basis of the patterned social interactions between members that sustain organizational knowledge and facilitates its reproduction. Self-reinforcement, in this sense, is about how organizational life happens, and the self-reinforcing mechanism indicates that the behavioral patterns already happening, is a strong decisive factor for what will happen next. Such an understanding of organizational life is shared by many others before. Levitt and March (1988) stated that organizational routines not only record history, but shape the future course: each time an organization uses a certain routine, it becomes more proficient at that routine and more likely to repeat it in the future. This has little to do with positive (or negative) feedback, in fact it seems to be the contrary, in this sense self-reinforcement would not represent how a process is accelerating, but how an organizational pattern reinforces itself to remain the same. Nelson and Winter (1982) have the same tone, saying that "within an organization, existing routines serve as templates for producing copies, making their replication possible from day to day, but also over generations of the company's employee's. DiMaggio and Powell (1983), however, describes organizational self-reinforcement as a positive feedback process: " organizational inherence patterns are sensitive to the effects of self-reinforcing positive

feedback on small, fortuitous events; that is large and successful enough to provide attractive model for imitation".

Whether organizational self-reinforcement would comprise, an "accelerating" feature of positive feedback, or rather a sustaining mechanism, it rests on the premise of pathdependency. Pettigrew (2001) criticized the tendency to view organizational life over time as enacted in discrete episodes rather than as path-dependent processes that emerge, progress and recede in a socio-cultural time and space. But, single-snapshot methods prevail in studies of change in organizations, following the tradition of the modernist social sciences (Avital, 2000). However, portraying an organization as timeless, neither connected to a past nor a future, is problematic as it discounts organizational dynamics and the dynamics of external contingencies (Armenakis et al, 1999; Pettigrew et al, 2001; Farjoum, 2002) and also fails to surface self-reinforcing processes. As Pettigrew et al (2001, page 700) put it: "time is not just 'out there' as neutral chronology, but also 'in here' as a social construction of events in the context of the organizational time cycles that modulate the implicit rhythms of social systems." Thus history matters; it is not merely a photo album representing instances of past events, but holds meanings that are carried forward in human consciousness; it is alive in the present and, more importantly, it shapes the future. This is what is meant by organizational change being path-dependent, and it is this dependency that needs to be accounted for when studying organizational life. The dynamics of path-dependency are already well acknowledged and central in other theoretical fields, e.g. epistemology theories (Radnitzky and Bartley, 1987), discourse theory (Wetherell, 2001), industrial wisdom (Melander et al., 2008).

Sydow et al (2009) warn against the circularity of using path-dependency as sole explanation of past influences on future outcomes since it neglects to explain the messy social interactions, negotiations and tensions that generate, maintain and, sometimes, may even breach path-dependency. Sydow et al (2009) suggest that organizational path-dependency can be explained using one or a combination of several self-reinforcing mechanisms: Coordination effects, Complementary Effects, Learning effects, and Adaptive Expectation effects.

With this paper, we suggest that the collective identity of "being a construction worker" is a self-reinforcing mechanism in construction. We discuss this mechanism, as being triggered by

contextual conditions and reinforced and sustained by adaptive expectation effects (Sydow et al. 2009). We also briefly highlight its potential implications for the organizational path.

#### **Methodology and Results**

The findings in this paper draw on an ongoing longitudinal case study at one of the largest construction companies in Sweden (here referred to as Alpha), focusing on strategizing and organizational change, from 1990 to date. A case study design was chosen since our initial aim was to increase understanding of the unfolding of complex phenomena as perceived and narrated on the micro level in the organization (Eisenhardt 1989, Alvesson and Skoldberg, 2000). The data therefore consist of managers' retrospective accounts of change from 1990 to-date complemented by observations of strategy away-days, informal "water-cooler" conversations, and analysis of governing organizational documents. These methods provided us with a large number of stories of organizational life as it is perceived, portrayed, and lived in its situated context. The following sections describe the research settings of an interview study and an observation study, and sum up the results.

#### Alpha – the case company

The time period studied (1990-2010) has been one of the most turbulent periods so far in Alpha's approximately 100-year history. Back in 1990, Alpha was organized as a number of geographical units that operated independently and opportunistically, as long as they could deliver profitability "no questions were asked". But at the beginning of 2000 things started to change, when a new strategic direction was formulated. With this, the corporate board had decided that Alpha needed to be more standardized and specialized in order to be more efficient and profitable. They also wanted to make better use of all the knowledge that existed in the company and reap higher benefits in relation to economies of scale (Alpha was already then one of the largest construction companies in Sweden). In 2003, Alpha reorganized and removed a whole hierarchal level to create a more centralized organization. The board introduced a balance score-card system to measure the performance of every geographical unit on a number of standardized performance measurements. A common code of conduct was formulated, and a central purchase organization was initiated. In 2009, the HR, finance, and organizational support functions, were moved from the geographical units to sort directly under top-management. While the main focus during the first decade of 2000 had been

efficiency and profitability, Alpha has just recently formulated a new strategic direction intended to support steady growth as well.

#### The Interview study

Between 2010 and 2011 interviews were carried out with 28 managers at Alpha. The managers represented middle- to upper level positions from both the line organization as well as central functions (including HR, economy, and organizational support), and were sampled from wide-spread geographical locations all over Sweden. The theme for the interviews were organizational change, and during the interviews that lasted between 1-2 hours the participants were prompted to give their retrospective accounts of organizational change in Alpha. There were no specific preconceptions or theoretical framework guiding the interviews and they were kept highly open-ended. Such a "free" storytelling without any prior reflection or preparation has been advocated as an appropriate narrative interview technique; rather than prompting interviewees to talk about discrete episodes or specific events, the personal stories that evolved were allowed to build on larger frames of references and examining the underlying assumptions and beliefs that guide actions (Cladinin and Conelley, 2000; Gill, 2001). The time perspective (Pettigrew, 2001) was therefore considered in the sense that the interviewees were free to tell their stories about an unrestricted time period. The only consistent "involvement" from the researcher conducting the interviews was to ask for the perceived rationale in relation to the events described: "Why did [this event] happen?" and "What do you think were the driving forces behind [this event]?". We kept doing interviews until we felt that we would learn little or nothing new from yet another story.

All the interviews were tape-recorded and transcribed verbatim. A narrative analysis was then applied on the data, which means that the various accounts or fragments of accounts of change were coded and then united by a plot that made the fragments cohere and make sense (Czarniawska, 2004). The analysis followed two main steps. The first step was to compile the accounts into chronological sequences unified by plots to obtain a chronology and overview of the time perspective. We found that the managers related the episodes to persons, both as a way to structure their own chronology, but also as a way to make sense of them. (see Löwstedt et al 2011).

The second step of the analysis was to understand the interviewee's perceptions of the changes. The main concern here was that the data would "speak to us". From our close readings of the transcripts, a pattern gradually emerged. This resulted in the identification of

seven organizational episodes that ranged between 1990 and 2010 and were remarkably similar in the 28 interviews (the time period in this case study was thus selected on exploratory basis). The high degree of consistency found in relation to these seven episodes, seemed to suggest that the interviewees were drawing from a common organizational memory. We found that they perceived organizational change to happen discontinuously and reactively, and we found a "problem solving" mentality of solving the most immediate problems as they occur (Löwstedt and Räisänen, 2012).

We looked at these results through a narrative lens. From a narrative perspective, narratives are fundamental forms of human understanding, pervasive in all interaction and through which individuals and collectives make sense of their actions and their environment (e.g. Boje, 1991; Weick 1995; Czarniawska, 1998, 2004). Sometimes, organizations are more generally viewed as story-telling systems (Boje, 1991) and narratives are seen as constructing and constituting the identity of an organization (Brown 2006; Czarniawska, 1997). This makes narratives interesting and potentially very fruitful for studying organizational change processes (e.g. Boje, 1991; Rhodes & Brown, 2005) and central to the understanding of organizations in general (Brown, 2006). Narratives are not merely the re-telling of a story about organizational life, it is also a central part of organizational life itself. Brown (2006) argues that a narrative approach has the potential to account for and reveal centripetal as well as centrifugal forces existing in organizations, directly affecting the inclusion and exclusion of certain turns of organizational life; Geiger and Antonacopoulou (2009) explain the roles of narratives in organizational change efforts and illustrates the way such self-reinforcing blind spots become a potential source of organizational inertia and path dependency; and Boje (1991) argues how narratives in an organization affect decision making: when decision is at hand, old stories are recounted and compared to unfolding story lines to keep the organization from repeating historically bad choices and to invite the repetition of past successes. Furthermore, individual frames of reference, especially those of managers, are shared and used to create governing realities since managers possess interpretative priority over employees. They can therefore be seen as "practical authors" of the outcomes of the organizational conversations they have (Shotter and Cunliffe, 2003).

#### The Field Observations

In 2011, Alpha hired a consultant company to organize strategy workshops for their managers. The occasion was a business plan for 2011-2015 and the workshops were intended to communicate and consolidate the new strategic direction. Alpha invited all their middle-and higher level managers to participate in mandatory three-day activities at a designated conference facility. The managers were invited on the basis of their respective districts, which usually involved 20-30 of them at each occasion. We sat in as observers at three full workshop sets (nine days in total, including a pilot workshop). The occasions were selected to represent a diverse sample and thus ranged from higher- to middle level managers from different functions and geographical districts. During these days we observed the managers participating in scheduled workshop activities, which included presentations, exercises, group work (which we sat in on), and discussions. Additional to these formal settings, we also joined the managers for breakfasts, lunches, dinners, and after work beers, and listened to their informal conversations. Over 100 pages of field notes were taken during these observations.

This data is yet to be analyzed in-depth, but preliminary findings show that there seems to exist some sort of collective identity amongst all the managers at Alpha. The following is five short episodes that are typical for this finding. The first three episodes are withdrawn from data from the pilot round of the workshops. During the pilot workshop a number of high-level managers sat in when the consultants tried out their intended settings on them. This was the final rehearsal before the "real" workshops.

#### Episode.1

Situated context: In the middle of a presentation in which the consultants introduced an assignment concerning business opportunities for a fictive case company. One of the managers interrupted.

Manager: "You can't have this type of assignments"

Consultant: "What do you mean...why?"

Manager: "They will not understand this."

("They" referred to the middle-level managers that were to participate in the workshops.)

The consultant stopped and took notes.

Episode.2

Situated context: In the middle of a presentation in which the consultants introduced an

analytical tool. One of the managers interrupted.

Manager: "Will this be in English?" (Referring to the text in the assignment written in

English)

Consultant: "That's how we planned it, yes"

Manager: "You should not have it in English. You should translate it to Swedish for them"

Later that day we heard the consultants talking to each other about this episode. They seemed

to be a bit annoyed by it. One of them explained to us:

Manager: "We have been doing these workshops with so many different companies and we

have never been having any problems with the assignments being in English"

Episode.3

Situated context: One of the consultants was presenting the theoretical framework underlying

an analytical tool meant to be used during the workshops. One of the managers interrupted.

Manager: How will they be able to use this?

Consultant: I will explain that soon.

The managers sitting in the room started to whisper to each other. Another manager raised a

question concerning the consultant company's experiences.

Manager: "You said earlier that you have no prior experience of working with construction

companies... [Pause, silence in the room]...so, if you were to describe Alpha with four words,

what would they be?

The consultants seemed to be a bit dazzled by this comment and didn't respond. Instead the

manager made a final remark, before the consultants continued.

Manager: "We are a bit special you know"

These next two brief episodes are withdrawn from data from the "real" workshops with middle- and lower-level managers.

#### Episode.4

Situated context: The consultant asked the group of managers in the room for their comments about the five strategic pullet points formulated in the new business plan. Instead of actually discussing these points, most comments during that session related to the managers explaining for the consultant "who they are"

Manager: "We are very focused on production...we seldom sit down and reflect...we are doers [sic] you know"

Another comment from another manager during the same discussion.

Manager: "You know, we are the same type of personalities all of us...on a "miles-test" all of us is the same...so, as soon as we are in a diverse group things are getting questioned"

#### Episode.5

Situated context: One of the consultants is in the middle of a presentation. One of the managers interrupted and commented on the slide.

Manager: "Hold on ... why do you have to use all these terms in English?"

This episode recounts to Episode.2 from the pilot study and corroborates the comment made by a high-level manager about "their" relation to English.

In relation to these findings we started to think about what "we" referred to, i.e., was it "we" as we that participates in the workshops, was it "we" as we that work at Alpha, or was it "we" as we that are strategic managers. We found that even though the managers participating in the workshops had been promoted to the rank of strategists, they rather kept identifying themselves with the original craftsmanship "construction worker". This was typically expressed as "we are...", "we are construction workers...", "as construction workers...", "for us that are construction workers..." We didn't find any equivalent statements that related to the manager identity or to the strategist identity, such as "we as strategists", "we as strategy workers", "as strategy managers" etc.

They furthermore ascribed specific traits to "being a construction worker", e.g. "construction workers [we] are..." Two of the most reoccurring traits seemed to be "to be doers" as in the example in one of the episodes above. Another one was "problem solvers": "construction workers [we] are problem solvers", "we just solve the problems", "we just solve it [the problem]".

They also legitimized their current strategy position through the original craftsmanship (the importance of knowing the craftsmanship; knowing how to "construct") and we also learned that it seemed to exist organizational norms related to the construction worker craftsmanship. The conversational exchange at the beginning of this paper is an example of this. Here we would like to tie back to it and recount what happened next:

The middle managers attending these away-days were given the group-task of envisioning actions to enhance effectiveness in the organization. Each group had to present their proposal to a representative from top-management. Manager J, the spokesperson for his group, questioned the organizational practice of recruiting from within construction and proposed the "new idea" of headhunting experts outside the sphere of construction.

Manager J used the researcher's point of recruiting from outside the construction sphere as a "new idea" to tackle an existing problem of finding personnel to certain positions. This epitomizes the notion of the organizational norm that is tied to the craftsmanship and to the collective identity of "being a construction worker".

Another illustrative example is a comment made by one of the few non-construction recruits working in a central strategic support team.

"I have so many times been told that to get anywhere [in the organization], I need to go out and work on the building sites"

This is a good example of how an "outsider" is facing this organizational norm. The outsider is facing the norm and the legitimacy tied to "being a construction worker"; the way to do career is to start by working the mud on construction sites and then successively progress up the hieratical ladder. We came to learn that managers, at all levels, very seldom are recruited outside of construction spheres, but instead fostered in the building projects during several years before they can acquire legitimacy for promotion. This climbing of the promotion ladder was also corroborated during the interview study. In the beginning of every interview

we asked the managers for a brief description of their professional careers and backgrounds. It turned out that the vast majority of the managers had started their careers working the mud as construction workers and thus had become higher level managers because they earned legitimacy in accordance with the established norms (being construction workers for a significant number of years). These norms can be seen as embedded in the construction industry's "wisdom" overall. (Melander et al., 2008)

#### **Discussion**

We argue that there is a sense of collective identity that permeates members of the organization regardless of role, position, and function. Based on our finding we suggest that "being a construction worker" is a collective identity, inherent in the cultural capital and organizational norms. We propose that the effects of this collective identity can be understood as an organizational self-reinforcing mechanism in which the "construction worker" identity is reinforced across organizational levels.

Sydow et al. (2009) developed a framework of different types of self-reinforcing mechanisms at the level of single organizations and organizational sub-units. One of them is *Adaptive Expectation Effects*, which is based around the notion that individual preferences are expected to vary in response to the expectation of others. The dynamic of this self-reinforcing mechanism is driven by a self-fulfilling prophecy, in which organizational members are willing to adopt practices because they expect others to do the same. This tendency is continuously reinforced by the seeking and signaling of "becoming" and "belonging" (Tsoukas and Chia, 2002); individuals who do not subscribe to the mainstream practice may risk losing legitimacy and be stigmatized as outsiders (Sydow et al. 2009: 700). The notion of a collective identity suggested in this paper could in part be understood as reinforced by the effects of adaptive expectations. The data presents various examples of how individuals respond to the implicit and explicit expectations and legitimizing power related to the construction craftsmanship. The "self" is thus both reinforced by and reinforces the adaptive expectations related to the collective identity.

Additional to the four self-reinforcing mechanisms that Sydow et al. (2009) develop, they recognize that some researchers add *contextual conditions* as a further reinforcing effect of and in institutions (Pierson, 2000). Sydow et al. (2009) argue however that contextual

conditions not should be misconceived as self-reinforcing mechanisms in their own rights, as they neither lead directly to path dependency nor represent sufficient conditions for the occurrence of path dependency. A theory of organizational path dependency has to differentiate properly between self-reinforcing mechanism on the one hand and enabling contextual contexts on the other (Sydow et al, 2009: 701). They do however acknowledge that Pierson's (2000) findings should encourage further research in order to explore how contextual conditions can enhance or hinder the unfolding of self-reinforcing mechanisms and subsequent constitution of organizational path.

Based on insights from the case study we suggest that such contextual conditions could be a triggering event and thereby enhance the unfolding of the mechanism that reinforces the collective identity of "being a construction worker". Building projects have often been ascribed certain conditions, such as that each building project is unique and that initial plans in building projects seldom corresponds with actual outcomes. Construction sites are furthermore still dominated by male workers and much indicates that a "macho culture" prevails. Without digging further into that conception, we have been presented many examples of how you need to know construction yourself in order to get construction workers attention; in order for the "guys [sic] to listen to you", i.e., you are being legitimized by the construction worker identity. The interview study shows that strategic managers perceive organizational change to happen reactively and discontinuously over time, i.e. solving the problems as they arise (Löwstedt and Räisänen, 2012). This mentality of change has similarities to the "problem solving" mentality ascribed to the collective identity as well as to the reactive abilities needed to cope with the contextual conditions out in the building projects. They furthermore make sense of organizational life via a number of strong leaders, in which personal authority in its own right seems to legitimize organizational change (Löwstedt et al., 2010), i.e., similar to the personal authority conditions they once faced out in the building projects.

This warrants future research, but we propose that a positive feedback (DiMaggio and Powell, 1983) is created around the specific contextual conditions at the building sites, triggering certain behavior and identity. This in turn adds to the collective identity of "being a construction worker" and is being brought up to strategic levels when the successful construction workers are being promoted in accordance to the established organizational norm.

We believe that the collective identity of being "a construction worker" can explain parts of the organizational path in a large construction company as well as parts of the "wisdom" within the industry (Melander et al., 2008). The collective identity identified in this paper spans across both operational and strategic levels, but the associative behavioral patterns and identities might not be desirable in accordance. The behavior triggered by the contextual conditions in a building project (you need to be a problem solver: because every project is unique; you need to be reactive: because plans seldom concur with practice; you submit yourself to strong persons: because their authority is guiding) might inhibit important long term development for the company on a strategic level (increased efficiency, technology development, and successful organizational change need consistent and long-term, vision driven work, rather than sudden reactive actions). The ideal behavior related to the operational conditions in a building project is thus somewhat contradictory to the ideal strategic behavior, but the mechanism that reinforces the collective identity is merging the two together in a way that may result in a problematic organizational path.

#### **References**

Alvesson, M. and Skoldberg, K. (2000) Reflexive Methodology. Lund: Studenlitteratur.

Arthur, B. (1996) Increasing Returns and the New Worlds of Business. *Harvard Business Review*, 1996

Armenakis, A. and Bedeian, A. (1999) Organizational Change: A Review of Theory and Research in the 1990s. *Journal of Management*, 25, 293-

Avital, M. (2000) Dealing with time on social inquiry: A tension between method and lived experience. *Organization Science*, 11, 665-673

DiMaggio, P. and Powell, W. (1983) The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Field. *American Sociological Review*, 48(2), 147-

Edmondson, A. and Moingeon, B. (1998) From Organizational Learning to the Learning Organization. *Management Learning*, 29(1), 5-20

Eisenhardt, K. 1989. Building theories from case study research. *Academy of Management Review*, Vol. 14 (4), 532-550.

Farjoun, M. (2002) Towards on Organic Perspective on Strategy. *Strategic Management Journal*. 23, 561-594

Hodgkinson, G. Whittington, R. Johnson, G. Schwarz, M (2006) The Role of Strategy Workshops in Strategy Development Processes: Formality, Communication, Co-ordination and Inclusion. *Long Range Planning*, 39(5), pp. 479-496

Krugman, P. (1999) The Role of Geography in Development. *International Regional Science Review*, 22, 142-

Levitt, B. and March, J. (1988) Organizational Learning. *Annual Review of Sociology*, 14, 319-338

Lutz, J. Gabrielsson, E. (2002), Byggsektorns struktur och utvecklingsbehov. Byggkommissionen.

Lynn, I. (1990) Evolving Interpretations as a Change Unfolds: How Managers Construe Key Organizational Events. *The Academy of Management Journal*, 33(1), 7-41

Löwstedt, M. Räisänen, C. (2012) Playing back-spin balls: narrating organizational change in construction. Forthcoming in: *Construction Management and Economics*.

Löwstedt, M. Räisänen, C. Stenberg, A-C. Fredriksson, P. (2011) Strategy work in a large construction company: personified strategies as drivers for change. *6th Nordic conference on Construction Economics and Organisation*, 13-15 April, 2011, Copenhagen, Denmark.,

Melander, A. and Nordqvist, M (red.) (2008) *Att förstå Strategi*. Författarna och Studentlitteratur 2008

Nelson, R. and Winter, S. (1982) *An Evolutionary Theory of Economic Change*. Harvard University Press: Cambridge, MA.

Pettigrew, A. Woodman, R Cameron, K. (2001) Organizational Change and Development: Challenges for Future Research. *The Academy of Management Journal*. 44(4), 697-713

Radnitzky, G and Bartley, W (1987) *Evolutionary Epistemology, Rationality, and the Sociology of Knowledge*, Open Court Publishing

Rostow, W. (1956) The Take-Off Into Self-Sustained Growth. *The Economic Journal*, 66(261), 25-48

Rosenheck, R. (2001) Organizational Processes: A missing Link Between Research and Practice. *Psychiatric Services*, 52(12), 1607-1612

Shotter, J. and Cunliffe, A. (2003) Managers as practical authors: everyday conversations for action, in Holman, D. And Thorpe, R. (Eds), Management and Language, Sage, London

Sydow, J. Schreyögg, G. Koch, J. (2009) Organizational path dependence: opening the block box. *Academy of Management Review*, 34(4), 689-709

Wetherell, M. Yates, S. Taylor, S (2001) *Discourse theory and practice: a reader.* London: SAGE Publications Ltd.