Taking Teams Seriously in the Co-creation of Economic Agency: Towards an Organizational Sociology of Teams

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Introduction

Almost twenty years ago Richard Whitley (1987) wrote a programmatic article "Taking Firms seriously as Economic Actors", which played a prominent role in initiating studies of how firms became socially constructed in different ways in different societies, i.e. the literature on national business systems (Whitley and Kristensen, 1996; 1997; Whitley, 1999 and Morgan et al. 2005). His article started from Coase, Williamsson and Chandler's discussion of the importance of large firms and how we could explain them. Contrary to these authors, however, Whitley insisted that the existence of firms should be given a more open-minded and yet systematic consideration:

> Taking firms seriously as economic actors implies that their boundaries, constitution and development become significant foci of analysis and that the conditions under which particular kinds of firms become established, interact and change require systematic consideration. Rather than reducing them to epiphenomena of market processes or class conflicts, firms needs to be conceptualized as interdependent, semi-autonomous economic agents, which are able to control and direct the uses of resources by virtue of delegated property rights in ways which make a difference to economic and social outcomes (Whitley, 1987, p 126).

Since Whitley wrote this article and gave one of several impetuses to the study of the nature of firms, we have accumulated new knowledge about how differently they are constructed in different national contexts. In some societies firms are part of business groups which in many ways change their behavior compared to the typical Chandlerian corporation as the individual firm takes part in a political-economic coalition that limits its autonomy and independence, but increases its resource base, while in other countries they are regulated to be atomistic economic actors in a more strict way.

While we were studying firms in their social and institutional context, the global landscape changed dramatically. In some countries clusters of innovative firms came to challenge the dominance of large, multidivisional firms – e.g. in the US. Outsourcing and globalization changed the patterns of production logistics. The internally focused R&D labs broke up, and "open innovation" (Chesbrough, 2003; 2006) taking place in global networks offers a new challenge in understanding firms. Within firms, work-organization changed towards the integration of planning and execution so that firms could change and redefine their roles continuously to harvest the fruit of global dynamics – trying both to achieve cost

reductions and fast innovation (Herrigel, 2007). This in turn has led to a situation in which an ecology of work- and project-teams are increasingly constituting firms, and the former self-evident conceptualization of firms as fundamentally constituted as hierarchies – though built on a diversity of different institutional building blocks in different countries – is being questioned. As especially Boltanski and Chiapello (2007) have made clear, the "projective city" is a landscape very different from the "industrial city".

Therefore it is time to pose Whitley's question concerning "work-teams", if we hypothetically start from the expectation that teams may be the blocks building the projective city. In Whitley's optics, teams should be studied as interdependent, semi-autonomous economic agents partly able to control and direct the uses of resources, rather than seeing them as epiphenomena of managerial decision processes and hierarchical control in the last resort. Surely, work-teams are in most cases the outcomes of top-managerial initiatives and as such expressions of the behavior of firms as economic agents. But creating teams as a novel way of organizing work may have a certain twist to the dynamics of agency.

Penrose (1959) is widely agreed in the literature to have captured the basic logic of this dynamic when it comes to the firm as a hierarchy. According to her, managers are continuously developing novel routines to expand the rational operations of firms. When these novel routines become appropriately fixed they can be left to subordinates and workers, who simply carry them out in repetitive ways. The core competence of the firm becomes the ability to create, in this hierarchical way, novel routines embraced with a certain, distinct logic. This evolutionary logic of the firm as agency is also recognized in later literature, e.g. Nelson and Winter (1982).

The National Business System approach seriously complicated the hierarchy by showing how differences in financial systems and vocational training systems helped shape differently both the social position of workers and managers and their mutual identities thereby e.g. providing highly divergent forms of authority among countries. But basically the approach took for granted that the hierarchical division of labor among workers and managers followed the Penrosian pattern.

One of the important aspects of team-organization is to delegate not only a well defined set of activities and routines to perform to work teams to carry out, but also to make the latter responsible for continuous co-creations and improvements of ideas, products, services and work routines and, to various extent, for the innovative change of what they produce. In this way they seem to break with the received wisdom on hierarchically structured evolutionary dynamics of firms.

Yet, most of the literature on team-organization neglects to seriously re-consider the evolutionary dynamics of firms from the vantage point of teams gradually gaining agency. The literature generally takes for granted that teams are delegated responsibilities top-down (and may be taken back by the higher echelons of the firm). Even very sophisticated observers of teams, such as Benders and van Hootegem, in their analysis of teams take for granted that they operate within a hierarchical structure:

> …. After all team members sell their labour capacity to the employing organization in exchange for wages. In other words, employees agree to work under the authority of managers who are appointed by their employing organizations. Thus the organization sets the boundaries within which any employee, thus also a team member, may act. Within these boundaries, employees may be expected to be given directives (Bender, 2005: 56).

With such a framing of the object we tend not to pose such important questions as: What happens to the managerial function when teams constantly doubt and change existing routines? What happens to managerial authority, when teams become the primary contributors to improvements of performance ? What happens to the political coalition making in a firm, when the ability to make continuous improvements differ among teams and over time? What happens when teams by taking seriously their obligations to do continuous improvements and innovations tend to collide in struggles over demarcations? And what happens when individual teams in their rivalry decide that the best way of developing their community is to lay off a number of its members, who – in the opinion of the majority of the members – holds a wrong attitude? Is it not fairly easy to see that in such cases teams start defining the problems that managers have to solve, i.e. teams start to delegate to managers a new role and new responsibilities? We think that it is important to actually study how a team and its members get mutually constituted, how teams mutually constitute each other and how they jointly co-create the firm as a community of team communities.

The structure of the paper:

In the next section we further specify what might be the implications of changing to team-based organizational forms and introduce the four case-studies. Then we present an outline of the two predominant team models in the literature and discuss the problems of defining teams/teamwork in order to illustrate the relevance of developing new analytical frameworks for conceptualizing contemporary forms of team organization. Then follows a section in which we describe our experiences and reflections (and re-considerations) conducting a field study of new modes of team-based work organizations in Danish manufacturing companies. While trying to take the empirical manifestations of teamwork seriously, conducting this study we were faced with many of the problems of defining teamwork. Therefore our study reflects a highly iterative re-search-journey through the empirical landscape of contemporary teamwork practices in Danish companies. Then follows a section where we take stock of our findings compared to existing "rules-of-thumb" in the team literature while also moving the focus from individual team community to that of team communities as this is important for the kind of dynamic embedded in a firm. In the final section we propose a tentative outline of this dynamic, but also emphasize how the institutional context of a firm may shape this dynamic, which suggests a new agenda for comparative studies.

Studying Teams as Co-creative Economic Actors

Contrary to the majority of the existing HRM literature and team research the primary study object of which is either the individual (i.e. the individual employee and his/her resources or performance) or the group (i.e. the team unit and its joint resources or output), our focal point is the community of teams, its relational dynamics, and how it serves as a constitutional device for the firm. By this we want to stress relations of interdependencies among teams and the dimension of 'we' within and among teams. For this reason we introduce the concept of community of team communities.

As opposed to conceiving teams merely as a formal organizational work form, we understand teams as 'relational settings' constituted by both endogenous and exogenous relations. In this light not only the

internal relational patterns among team members, but also their relations to other teams and the wider organizational context condition its configuration. Hence, we define team community as the 'we' constituted by the intra- and inter-relational dynamics among members of the team. By exploring the nature and workings of team communities from a relational approach, we aim to develop our understanding of how team communities may be supported and monitored "from below" – i.e. from the level of work organizing, how they evolve and may become constitutive for the firm and its evolutionary dynamics rather than taking for granted at the outset that the firm constitutes them in a hierarchical way.

A team-oriented change in the organization of the firm may have important consequences for how, who and through which processes the boundaries, constitution and development of both teams and firms become determined. At least in a transitory phase, traditional concepts of governance encounter a number of novel challenges. If teams are still hierarchically controlled and decisions still reside with top managers, it may create a lot of tension because with the change, managers have lost the feel for the experimental process of developing from past experience future routines for the teams and the firm. In such cases search for new routines are going on among teams, but are defined by managers cut off from the search itself. Another way of determining the future evolution of the firm could be to let an internal market mechanism take over the internal organization giving to the teams the right to define future routines dependent on their relative performance of the past. This would, however, soon lead the firm astray as emerging needs and novel, preliminary and volatile teams would be deselected to the effect that exploitation takes dominance at the expense of exploration and innovation.

In other words, if only market or hierarchy governed teams, they would lose the innovative potential that initially motivated their creation. Consequently, it seems as if we should expect that the more teams become the focal agency of a complex organization, the more difficult it is to imagine that the firm can escape from having its dynamic constituted by complex negotiation and deliberation processes among teams, involving both political and economic aspects and a strong sense of responsibility for the future among all the constitutive team elements of the firm. The question is whether the firm derives its identity and changing roles rather from the mutual negotiation process among its constitutive teams than from the entrepreneurial ideas of its principals? Will agency then have been relocated from the firm as such to rest with the community of work teams? And will the ability of the firm to become agency be dependent on the ongoing deliberation among its teams? What then becomes the nature of the firm? These are the questions guiding this paper.

Empirically the paper draws on four case studies conducted over a two-year period from 2006-2008. The cases are selected from a larger sample of companies, which we visited for a full-day in a first phase of the study. In the second phase of the study we re-visited four of these companies for a week conducting interviews, participant observations and collecting written material. We chose to closer investigate these four case companies because they seemed particular rich in information on how Danish firms experiment with novel team-based ways of collaborating and organizing work, of constantly redefining roles and rules, of changing their relations to other firms and customers, and of distributing authority throughout the organization. In what follows, we give a short introduction of the four in-depth case studies.

Tools Ltd. produces cutting tools, nails and nail-guns, but sees its main business as offering customers production optimizing consultancy services, tool management and -maintenance as well as education and training. It is a Danish multinational with headquarters in a small village in Jutland. Since 1995 it has built up its international capacity with subsidiaries in Denmark, Sweden, Norway, Germany, the UK, the USA, China, and the Czech Republic. Today it employs 560 people of which approx. 500 are working in Denmark. It is fully owned by management and employees, and ownership comprises 85% of the employees. The employees are working in teams in very unconventional physical facilities, set up along the ideals of a village community. The headquarters is one big 20,000 m^2 building in which production, stores and administration are literally placed on the same floor in one open room. On top of the building are seminar rooms, a huge auditorium, visitor rooms, etc., offering facilities for organizing courses for both customers and employees.

Tools Ltd. is a genuine success story, which both financial results and an excellent work environment reflect. It has never operated at a loss in its 42 years of existence. From its beginning in 1964 the product program consisted primarily of tools from other manufactures, and since then the firm has continuously expanded its number of suppliers whose products Tools distribute to customers. At a point in time this position made it necessary to regrind cutting tools. It purchased a multi-purpose grinding machine, and began more generally to regrind tools for the region. Gradually it invested in more machinery and expanded the product program to service not only the woodworking industry, but also metalworking, food and graphic industries in a region that was expanding rapidly. By the late 1970s it expanded further by establishing business relations with numerous suppliers of tools for woodworking and furniture industries. From the beginning of the 1990s measurement and calibration equipment were added, and calibration services and measuring tools were offered to customers, while at the same time Tools Ltd. started to expand production of speciality tools, which could not be delivered by standard producers. In 1999 a tribology department, working with surface treatment (e.g. PVD coating and ion-implantation) and a training centre were set up. Thus offering safety courses and other forms of education and training became a new field of activity. Recently Tools Ltd. has used its knowledge to become certified as a quality toolmaker for suppliers to the automotive and aerospace industries. Technologically it has just moved into making use of nano technologies to create new surfaces of its specialty tools. In short, by continuously expanding its activities the firm has transformed itself from a small local supplier of Tjep nails to a service-oriented total supplier, operating on the global scene in close interplay with customers in need of high quality tools. The approx. 7,000 tools passing through the regrinding department every day illustrate the close interaction.

Tools Ltd. now positions itself as a problem solver and supplier of total solutions, including customized tools and know-how intensive services. It supplies "traditional" products such as cutting tools, lamina inserts, tool-fixtures, fastening systems, and measuring equipment, but always in combination with, for example, services such as tool maintenance, calibration and production optimization and to many industries (aerospace, automotive, building and construction, food, general machining, oil and gas, tele-communication, wind turbines, woodworking and furniture). Through its close interaction with customers, it has developed a wide range of competencies, and what it learns from one customer, can be used to service others. The total concept comprises competencies in production optimization, standard tools (complete tooling programs), customized/specialized tools, tool maintenance, tool management systems, and training and education. With the customers it works on continuous cost reduction and production optimization by analyzing and optimizing key processes, giving advice and guidance on machine and tool investments and offering guidance when customers introduce new products according to specific needs.

Production optimization, according to its working methods, is thus a continuous joint process, built on collaborative partnership.

Hydraulic Ltd. produces hydraulic, electro-hydraulic, and electric solutions for the slowly motioning vehicle industry. Its expertise is related to control and steering, work and propel functions, delivering high-performance components and integrated systems to a wide range of applications. With approximately 9,000 employees worldwide and a revenue of more than $1.7 billion it has sales, manufacturing, and engineering capabilities in Europe, the Americas, and the Asia-Pacific region. The company's executive offices are located near Chicago in Lincolnshire, USA and in Neumünster, Germany.

The history of its making as a multinational is paradoxical. During the 1980s a German company produced a product licensed from an American company. The product was successful on the European market. In the 1990s the German company began to expand through mergers and acquisitions, and one of its targets was the American company. First it bought 50% of its hydrodynamic division and three years later the remaining 50%, and the hydrodynamic division of the American company, formerly quoted in the New York Stock Exchange, became part of the family owned German company. The Danish part of Hydraulic Ltd. is a very different story. In 1964 the first Danish hydraulic product was developed in the headquarters of at the Danish firm in Southern Jutland, where huge facilities for Hydraulic Ltd. surround the HQs skyscraper today. Between 1990 and 1996 acquisitions in the USA and Poland helped bring together global competencies in hydraulics, and in 1998 the hydraulic part was separated from (though still fully owned by) the Danish company's core business. At the same time it was making radical innovations in valve technology and introducing team organization on the factory floor. In 2000 the German and the Danish hydraulic companies merged into Hydraulic Ltd. to reach sufficient scale and scope to become an important international player. Currently it is listed on the New York Stock Exchange and on the Frankfurt Stock Exchange, but only limited amounts of shares are traded freely. Two shareholders, the German family and the Danish family each held 38.5% of the shares of the holding company until 2008. In 2008 the Germans sold part of their shares to the Danish family, which now controls Hydraulic.

When merging, the two companies did not have significantly overlapping products, but succeeded in gaining marketing advantages, boosting sales in Europe and the US. Especially sales of Danish products on the American market increased continually. Two factors were decisive for this development. First, Danish products had a competitive technological advantage. Second, American OEMs saw Hydraulic Ltd. as an American company, run from Chicago. The triumph was that Hydraulic Ltd. was elected a John Deere supplier, and later, in 2001, was recognized as Supplier of the Year by John Deere Dubuque Works in Deere's Achieving Excellence Process. This position opened the market towards other American OEMs, for instance Caterpillar, also producing slowly motioning vehicles. Employment in Danish facilities grew from 700 in 2000 to its current 2,400 employees.

Spirit Ltd. is located in a town in Fünen, and is specialized in bottling, storing and distributing different types of spirit and wines. During the last decades the factory, which was originally part of the Danish COOP, has been sold four times, and while it belonged to a Swedish state-owned multinational, when we visited the plant, the Swedish government has now sold it off to a French multinational as a step in their privatization plans. These shifting positions and tough market competition have forced the factory to maintain high quality and implement continuous cost reductions. Wine conditioning, transportation and

bottling must be handled so that taste, alcoholic percentage, colour and transparency do not deteriorate, while low costs are tantamount. Recently competition has tightened further, as an over capacity in the Nordic countries intensified competition among subsidiaries of the Swedish multinational. A process of rivalry and negotiations over setting, and meeting benchmarks among the different plants in Finland, Sweden and Denmark has been used to contest and evaluate the comparative advantages of each factory. Some relocation of production proved necessary, but it was difficult to determine how to organize production and which sites to close. Setting benchmarks was a complex task, having to take into consideration e.g. variations in regional marketing position, production capacity, location in relation to consumer markets and flexibility. Many of these variables were not controlled by local sites, which mainly could improve on productivity, flexibility, quality and cost reduction. For two years, uncertainty prevailed about which of the factories should be closed. Another Danish site was closed recently and partly relocated to Fünen. Hardly had Spirit Ltd. won this contest before the path was set for a new turn, when the new French owner took it over in 2008.

Health Ltd. has become the world's leading provider of blood gas analyzers, measuring blood gases and other parameters used to diagnose patients in critical situations, and accessories, IT systems and support services for blood gas testing. The firm employs nearly 1,700 people worldwide, and their products are sold in more than 100 countries. Its headquarters are in Copenhagen and its global organization comprises three product companies in Denmark, the US and Switzerland, and a number of international sales companies. Thus the long story of Health Ltd. is about a Danish family-owned company going multinational by developing excellent products and services that make it possible to cultivate close ties to surgery departments in hospitals all over the world.

The new story, however, is that Health Ltd. has become a subsidiary. In 2003 a U.S. Fortune 500 company committed to continuous improvement, innovation and growth took over it. This shift has primarily implied a radical re-organization along an American lean model.

Health Ltd.'s main product company, with more than 800 employees (approx. 450 are so-called un-skilled), is located vis-à-vis its corporate headquarters in Copenhagen. It is surrounded by an old residential district, a shopping area and close to a beautiful lake. Inside the company the feel of locality, proximity and unity blends with employees continuously acting towards and being in touch with the world. People at Health Ltd. express pride and commitment in talking about their company and work, and do not take success for granted, but are conscious that the long process of successfully improving financial results, finding new and better ways to solve problems and expanding throughout the world has been co-authored. Thus, the takeover created new challenges, conditions and re-organizations that stirred up habits and routines causing new uncertainties and more intensive and constant pressure for innovative changes.

But it also revived former capabilities. Since its early days, Health Ltd. has developed products in close collaboration with Danish research institutions, such as the National Hospital (Rigshospitalet) and the Carlsberg Laboratories, which explains its reputation from such collaborative partnerships. During the years, when the Danish health system was leading in quality and funding, it had an ideal home market for innovative performance.

This way of operating has continued after the take-over. Though blood gas analyzers and production of instruments are still the core metier, the firm also offers a wide range of, for example, liquids, samplers and services such as process analysis, IT systems, quality as well as technical support and training. The market

share of analyzers globally amounts to 40%, while it is 97% in Denmark. In 2002, 96% of its turnover derived from exports; 21% from analyzers, 63% from accessories, 9% from services, and 7%, from other products. 41% of its turnover derived from sales in the European, 25% from the US and 19% from the Japanese markets[1].

Co-developing partnerships with colleagues, costumers and suppliers is characteristic of Health Ltd. For instance, it initiates a new customer relation with an analysis of the hospital's blood gas testing workflow based on dialogue, cooperation and exchange of experiences. The approach is called *The Red System* and is divided into three stages: First, process analysis of customer needs, testing environment, etc., to identify opportunities for process improvement. Second, design of solution to optimize customer testing environment, combining analyzers, IT systems and samplers. Third, provision of support in the form of training, QA, supplies of materials and technical support to ensure such degree of customer satisfaction that Health Ltd. becomes an ongoing partner, helping customers save time and increase productivity. These external ties are supported by a highly experimentalist work environment inside the firm, where everyone is encouraged to explore new ways of continuous improvements. The next step is to move towards the patient in Point of Care situations, especially around Acute Care, where the firm wants to acquire technologies, develop new measurement parameters and products and service hospitals to continuously improve operations in acute sections.

Before digging deeper into the empirical study of the team organization of these four firms, drawing on existing team literature we provide an outline of the two predominant team models. We further discuss the problems of defining teams/teamwork in order to illustrate the relevance of developing new analytical tools for conceptualizing contemporary forms of team organization. We suggest that one central step towards taking contemporary empirical manifestations of teams seriously is to develop frameworks that acknowledge the agency of teams, their relational character - and thus the organization as "a community of team communities".

Relating our approach to the general theoretical debate on teams

While research has shown that there are many varieties of teams, the literature has predominantly discussed two kinds; socio-technical and lean teams – inspired by the socio-technical school (Benders 2005) and the lean production philosophy with its roots in Japanese models of work (see for instance Womack 1990), respectively.

According to Pruijt (2002) and Benders (2005) emphasis on the importance of 'autonomy' is a cornerstone in socio-technical team models, which in addition stress factors, such as job decision latitude and employee involvement in design as pivotal for the team-based work form. Thus the socio-technical team philosophy entails a striving towards worker autonomy, collaboration and codetermination instead of increasing discipline, preferring the absence of team leaders or the leader as facilitator, coach or spokesperson. Additionally it involves a conscious movement towards job enrichment instead of a Taylorist division of work, the use of workers' knowledge, continuous skill development and the reintegration of conception and execution (Pruijt 2002: 2).

[1] Source of information: company website and downloaded power point presentation by the HR-manager

Contrary, team autonomy is not the driving force underlying the lean team model (although the lean team may embody a degree of participation). As the socio-technical team model it is also developed on the background of ideas of collaboration, interdependence and knowledge sharing, but in a much more constrained framework, since emphasis is first and foremost on the bottom line performance benefits of team working. Morita (2001 in Benders 2005: 61) conceptualizes lean teams as having four central characteristics: multi-skilled workers, programs for continuous skill development, allocation of tasks to work units (one task, one team) and strong work unit leaders. Often lean teams are accompanied by practices such as quality control circles or continuous improvement systems (Kaizen in Japanese) to increase efficiency and productivity. High performance work team is familiar to the form of lean team, but incorporates to a higher degree progressive human resource practices, e.g. incentives and rewards such as investment in training, performance-based pay and employment security (Ibid.: 63).

To summarize, socio-technical and lean teams are driven by two different rationales. With the risk of oversimplifying, the socio-technical team form can be said to be initiated and seen as a means to enhance the autonomy of workers and the quality of working life, while the rationale embedded in lean teams is to increase workers' efficiency, performance, and production results. But as Pruijt points out it does not necessarily mean that the socio-technical team form puts the quality of working life before productivity. Instead it takes improvement of the quality of working life as a condition for improvement of performance (Pruijt 2002: 2). However, in many ways this seemingly bi-polar roots for discussing teams has become blurred, not only because demarcation lines are unclear, but also because the two positions represent two highly different movements that have tried to make themselves attractive to their opponents.

> Team working is the point where two movements intersect: a movement for making a managerially attractive concept – the Toyota production system [and lean teams]- socially acceptable and a movement for making a socially attractive concept – anti-Taylorism in its various forms – managerially acceptable. The double lineage of the team working concept gives rise to internal contradictions and confusion (Pruit 2002: 3).

Sinclair (1992) assesses the combined effects of these two movements to have created a hegemonic ideology among management scholars and consultants for teams as *the* route to effective organizational performance. Thus by blurring the concepts, the ideology has become hegemonic because all groupings of practitioners can interpret the phenomena as in their best interests. Or as Boltanski and Chiapello (2007) would probably state it, today the organizational templates of team organization constitute a legitimate order from which discourses and justifications take departure.

However, given this legacy, it is not surprising that we find a wide range of bipolar team models in the team literature. Although these models classify teams in new categories they can all be said to characterize different aspects of the two prominent positions on teams, despite their distinct emphasizes on diverse dimensions of teamwork. For example the distinction between 'Swedish' and 'Japanese' models of team working (Berggren: 1993 in Benders and Van Hootegem 1999), involvement and productivity teams (Mueller), high road and low road team working (Bacon & Blyton: 2000), neo-Taylorist and anti-Taylorist forms of teams (Pruijt 2002). In certain respects, this dual typology of team working is problematic, as such taxonomies tend to push in the direction of classifying diverse practices into one or the other, and therefore easily tend to oversimplify the 'reality' (read: the diverse empirical praxises of team working) and the debate about what is going on in this 'reality' and how it will evolve. The dichotomies also imply a rigid

separateness when in practice elements often overlap significantly and constitute a variety of hybrids of a specific bipolar model (see e.g. Benders & Van Hootegem 1999).

Moreover the legacy of team concepts poses a very tricky problem, when the ambition is to take seriously the empirical manifestations and phenomena of teams.

The problems of defining teams and forms of teamwork

What is a team and what characterizes the teamwork organizational form? The question seems simple, but on second thoughts not all that easy to answer. First of all an answer depends on the characteristics, dimensions and demarcation lines that one defines as signifiers of the phenomenon. Second, every existing team and form of teamwork, whether inspired (or defined) by lean production or the socio-technical tradition of thoughts, has its own distinct features, e.g. in terms of team design, team activity, authority structure as well as context (i.e. specific environment)[2]. Let us take a look at this definition problem in both a theoretical and empirical perspective.

One common theoretical problem with definitions of teams is that they are either very broad or very narrow. A very broad definition is offered by Bracharach: *"A team is a group of agents with a common goal which can only be achieved by appropriate combinations of individual activities"* (Bacharach 2005: xxi). This definition can be stretched to encompass all from couples, families, street gangs, sports teams to nations in time of war as well as workgroups and thereby risks being devoid of meaning. Sundstrom et al.'s broad conception of teams as *"Interdependent collection of individuals who share responsibility for specific outcomes of their organization"* (Sundstrom et al. 1990: 120) delimits the definition to some degree by pointing to them as formal work groups within the organization and drawing attention to their strategic use. However, the definition gives no clues as to size and characteristics. But when these parameters are included new problems arise. Mueller's classic definition can help illustrate some of these problems. According to him a team should be understood as:

"a group of people that has between 8 and 15 members, is responsible for producing a well-defined output within a recognizable territory, where members rotate from job to job with some regularity, under a flexible allocation of tasks" (Mueller 1994: 383-4).

Obviously this more narrow definition excludes teams smaller or bigger than eight to fifteen members. Yet, why should a group of e.g. six members producing a well-defined output within a recognizable territory not be defined as a team? As Benders points out, Mueller's inclusion of job rotation introduces yet another problem – because a group of people conducting complicated work tasks, each contributing with his/her specialization, would accordingly not qualify as a team (Benders &Van Hootegem 1999: 618). An airplane crew, a group of surgeons and nurses or a shop floor unit without regular job rotation is disqualified as a team by virtue of this criterion. Clearly all these theoretically derived definitions of what a team is have limitations. And why should the output be well-defined and by whom, given that the rationale for a team might be improvements in exploitation or powerful exploration?

[2] Accordingly, there is for practitioners and academics no unambiguous definition of team or a single form or best model of team working (e.g. Benders & Van Hootegem 1999; Knights & McCabe 2000; Mueller 1994).

Another general problem concerns the empirical implications of defining teamwork. According to Knights and McCabe (2000) two extreme approaches to defining team working are identifiable. The first is to generate a list of practices that can be seen to attract the label of team working empirically. In this case team working is seen to include a diverse range of features. Nevertheless, there is a problem with such inductively developed definitions, which eclectically attempt an exhaustive coverage of the content of team working. As Knights and McCabe note: *"Such definitions are either all-encompassing and therefore non-discriminating or so restrictive as to be unhelpful as a framework of research"* (Knights & McCabe 2000: 1483). Benders and Van Hootegem shed light on another limitation related to the inductive approach when writing:

> "The issue [of definition] cannot be resolved empirically by studying what are called 'teams'; whereas such studies are useful and necessary to gain insight into the actions undertaken under the label of 'teams', a comparison of such forms of work organizations requires a definition that may not be derived from empirical practices" (Benders & Van Hootegem 1999: 619).

Hence their argument is that an external, deductively derived framework is needed for reasons of comparison. The quotation brings the second extreme approach to definition in focus, which simply is to define teams and team working, as would a dictionary, such as for example the earlier discussed definitions (e.g. Sundstrom et al.). However, as stated earlier, the risk of such deductively informed approaches is that they are also either too generic or non-discriminating or too restrictive. What is more, we risk deducting from a material that is limited by the infancy of our understanding.

Rhetorical understandings of teams and teamwork (i.e. when the phenomenon is taken at face value according to the labels ascribed to it) are another associated pitfall. Because asking for the presence of 'teams' or 'teamwork', entails the danger of getting answers that are based on completely different understandings of what 'teams' and 'teamwork' imply. Likewise, the use of predetermined substantive understandings of teamwork (i.e. where neutral defined terms are used to describe the phenomenon) run the risk of ignoring other aspects and alternative empirical significant characteristics of the phenomenon, not covered by the researcher's predetermined understanding (Benders, Huijgen and Pekruhl 2002: 374; Benders 2005: 64).

In short, the discussed inductive versus deductive definitional dilemma implies two classical methodological pitfalls. On the one hand, you cannot a priori define the object(s) (i.e. the forms of team and teamwork) being studied, nor is it, on the other hand, promising (or for that matter possible) to solely ground your definition empirically. But which conceptual frameworks and points of orientation may then guide the study of teams and teamwork? Confronted with the premise that teams and teamwork have no single uniform or stable character, and that any deductively or inductively derived definition is tricky, our approach to the definition problem has been highly tentative and explorative. That is, an approach, which draws on sensitizing concepts for exploring and furthering our understanding of team working and its organizational modes – i.e. concepts/understandings of team communities and team working that are continuously informed and "tested" empirically. In this process, we make observations, criticize former beliefs and try to take a next move, but without taking for granted that we have identified the final answer.

In the next section we describe our experiences with and reflections on (and re-considerations) conducting a fieldwork study of new modes of team-based work organizations within Danish manufacturing companies. While trying to take the empirical manifestations of teamwork seriously, conducting this study we were faced with many of the above-mentioned problems of defining teamwork. Therefore our study

reflects a highly iterative re-search-journey through the empirical landscape of contemporary teamwork practices in a set of Danish companies.

Exploring micro dynamics of team communities within the empirical world of Danish Manufacturing

As mentioned earlier four case-companies constitute the paper's empirical basis. We focus on these four case-companies because they are particular rich in information on how Danish firms experiment with novel team-based ways of organizing work at the level of everyday work organizing practices within and across units and teams. The cases are also rich in information on how the re-organization of Danish firms towards team-based work forms and collaborative work practices of continuous improvements is not a linear process with given end points. Rather these companies' re-organizations reflect ongoing processes of recombining "new" and "old" work practices, roles and rules in experimental ways at all organizational levels. And it is exactly the multilevel experimental character of such processes that cast doubt on the relevance of both a Penrosian perspective and existing rules-of-thumb in the team literature. In what follows we take a closer look at our empirical observations and analytical reflections exploring this empirical landscape.

No doubt, Danish managers have discovered the comparative advantages of leaving responsibility to the floor-level of Danish enterprises. In a previous study, Kristensen (2003) made it clear that team-based high performance work organization (HPWO) was diffusing rapidly and constituted a core element in discussions among managers and shop stewards across the divides of distinct Danish organizations. Visiting factories, however, also revealed that one single concept may refer to very different realities. In some factories, teams were like u-formed cells, in others they looked like a department and in yet others the concept was reserved for ad hoc groups working on temporary projects. Moreover they did transcend from one to another over time. They were also constituted very differently, e.g. in some places they were created hierarchically by managers who appointed team-leaders, in others the team-leader role would rotate among the members, some teams constituted themselves by electing a team-leader and others even saw the community of team leaders as an extension of the union club, where the union board would nominate the persons among whom teams could choose their leaders. We even came across a firm, then owned by a large Danish corporation, where rather than middle-managers, a large group of shop stewards managed the floor. But the discourse across firms totally ignored this heterodox reality, meaning that people would talk about "apples", while listeners would hear "pears".

Informed by this former study, when we began our empirical study. Our first phase of extensive case-studies therefore aimed at identifying a set of distinct types of team-based HPWOs. We believe to have identified four different types from in the four selected case-companies.

Spirits Ltd. constituted a lower boundary case in which teams had been formed, team leaders were selected jointly by management and union representatives, forming a partnership of enthusiasts, but struggling with a majority of lukewarm opponents, that would rather gossip negatively in the corridors than engage in serious discussion about possibilities for improvements in quality-circle meetings. This partnership was

highly interested in an investigation that could reveal additional organizing principles by studying other firms. Much of our further inquiry into other firms thus concerned finding a solution to this problem..

For example, it seemed as if factories in which the team-leader job rotated among members of the team, were less prone to split into fiery souls and lukewarm opponents. Here team members would be less critical and more constructive in their approach; they would watch and learn in order to prepare for the coming team-member role. This minor change helped improve the ability of team-members to take on the roles of others, and to improve on their own roles in the role-matrix of the team. Yet, in most cases where the principle of rotation had been tried, it had failed because many of the involved neither wanted to lead others, nor being leaders.

In Hydraulic Ltd. we found a fascinating constitutive principle that seemed able to solve this problem in turn. Hydraulic had introduced a TPM-concept, which meant that in a team all members would have operational duties *and* managerial responsibilities, the latter being distributed on organizing (the team-leader role), maintenance, logistics, quality and safety and environment. In addition to being a member of an operational team, each employee was part of a secondary cross-team, responsible for each of these managerial tasks. In this system operational teams were rivalling over performance, yet they were learning from each other, which improvements could be made. Thus all team-members were located in a nexus, receiving impulses and ideas for continuous improvements and innovations, making it easier for everyone to achieve the feel of actively contributing, making team-members much more egalitarian. Furthermore the team-leader role was continuously being elaborated by a sophisticated joint educational program organized by the further training institutions in the region and the plant's HR-department. Hydraulic Ltd. thus was thought to constitute the upper boundary case, and that other cases would be placed in the continuum between Spirits Ltd and Hydraulic Ltd.

Health Ltd. seemed to be a mixture. Here all workers would be part of a quite permanent team with a hierarchically appointed team-leader; and most workers would simultaneously have a second job, frequently working in other teams. Often, general workers would also join a development project constituting an additional source for role-shift. Thus a primary team would embody a group of people, who knew what was going on in most places of the factory could compare themselves with the rest, receive impulses for continuous improvements and was able to coordinate internal activities with other teams by using its many personal ties to other teams. Workers were very attentive to team-leaders' propensity to sub-optimize, and they would evoke the intervention of a very active group of shop stewards to take action, when more system-level initiatives for coordinating across teams were needed. Interventions from shop stewards, often jointly with upper-managers, would then use the formal works council to form across the firm ad hoc committees on novel issues for improvement, and engage members from a variety of teams to take part in these committees.

Finally, Tools Ltd. provided what looked like a utopian dream for how to organize work. First, all employees were part of each their primary team encircling a distinct industrial process, administrative function, etc. In addition, they would continuously and in abundance form ad hoc teams, e.g. to serve a new customer, engage in an R&D project, or to set up a foreign subsidiary. The variability of ad hoc teams was high, they were typically led by the little group of seven people from the R&D-team, and most primary teams were involved in a number of ad hoc projects. This continuous recombination of teams by ad hoc teams would bring challenges and impulses for improvements to the primary teams, and the firm seemed to run close to top performance despite no monitoring system would measure individual teams and

persons. Exactly because the monitoring system was not measuring individuals, teams or departments, ad hoc teams could be formed with ease and would not have to first overcome suboptimal concerns of individual fiefdoms in Tools Ltd. Tools Ltd. had a monitoring system, but it worked in a very different way than is normal for lean forms of work organization. As more than 85% of employees owned stocks in the company, they were highly interested in its overall performance, and reports would be published every morning covering the year up to yesterday. Outcomes higher than budgeted would lead to bonuses of the same absolute size to all employees, if they had not been on sick-leave, calculated on a monthly base. Budgeted performances, on the other hand, were made with an eye to make it possible to pay such dividends to stockowners that they would cover the eventual interest rates paid on banking loans, raised to buy the stocks. Thus the individual would always be able to follow the progress of the firm from the view of his/her personal economic prosperity.

All companies but Tools Ltd. imagined possibilities for improving their constitution as HPWOs, so we expected that these four firms would make it possible to investigate four very diverse types of logic enbling us to construct a typology of evolutionary paths. However, when returning to the companies everything had changed. In both Hydraulic Ltd. and Health Ltd., pressures from American headquarters to change into Americanized lean-systems had overruled the past work organization. In Hydralic Ltd. this even implied exchanging the former Danish manager with an American, which had caused a major breakup in the former tight collaborative pattern among union representatives and top managers. Furthermore, the formerly coherent TPM system had collapsed, and the factory had fragmented into a set of fiefdoms within which collaborative ties were attempted maintained. American managers were simultaneously increasing capacity to meet the exploding growth in demand for Hydraulic Ltd.'s products, considering which parts to subcontract and introducing lean principles in a chaotic way. In Health Ltd. the change had created such a mess that, the union representatives were primary interested in finding strategies for preserving the managers with whom they had been partnering over many years, so that they could jointly search for a compromise between their former and the new organization. In both Health Ltd. and Hydralic Ltd. workers and shop stewards were struggling to compensate for ongoing mismanagement trying to prevent the processes of restructuring from ruining their reputation among customers. Spirits Ltd. had in the meantime changed to the better. The owner had proclaimed that subsidiaries would be benchmarked in preparation for a set of plant closures. This had changed the game and everybody was struggling for performing to the limit of the possible. By introducing a second job, as in Health Ltd., and by engaging a large amount of people in changing lines and building new ones, the whole plant was up to its eyes in making changes and improvements. Thus in each of the three subsidiaries, the situation was chaotic, and yet the participants showed no signs of despair.

The cases demonstrate a totally surprising changeability, which a third visit confirmed. Once more the situation had changed. Hydraulic Ltd. had got rid of American managers and a managerial team was eager to repair damages towards the union representatives in order for a new partnership jointly to find ways of coping with an incredible expansion. Health Ltd. had lost the managers they thought they needed to be able to repair damages, but the American headquarters had sent a Polish manager, who was eager to learn how to combine lean with Danish high discretion. Spirit Ltd. had won the battle and was integrating a former Swedish plant into its activities, introducing whole new lines and making surprising fast improvements in order to prepare themselves for a new owner. Most of the practices from the first visits were still in place and had been recombined in novel ways, new elements had been added, but hardly anyone could tell how a comprehensive view of the current HPWO looked. Only in Tools Ltd. the few basic principles were still in place, apparently because they allowed the firm to absorb continuous changes

and redefinitions of roles within and without changing the basic constitution of the organization. What runs through these stories is the general observation that the firms are able to re-adjust in autonomous ways despite highly volatile ownership structures, shifting managerial templates and highly diverse and shifting customer relations.

Three recurrent observations of team work practices – derived from our field study

Trying to understand this empirical landscape of very diverse and highly changeable modes of team organizing by existing bipolar team models and fixed definitions of teamwork seemed of little help. Analyzing the study's empirical manifestations of teams we also realized that the construction of a typology of different team-based organizational forms was rather problematic, as no typology could account for the changeability of work forms and team organizing practices demonstrated in our case studies. Instead of bipolar teamwork patterns (of e.g. high road and low road teams) or a set of common types of team-based organizational forms, what rather seemed to emerge from the empirical landscape was a "hotchpotch" landscape of diverse and constantly changing team organizing practices both among and within teams. However during our fieldwork we identified three recurrent observations – or three common characteristics of team-based work organizing practices in the four case-companies.

The first recurrent observation was that all four cases had developed an ability to constantly re-organize and re-combine their work organizing practices within and across units and teams. Accordingly, the case-companies' different work organizations showed a common ability to capture, compensate for and yet try to get the best from the new team models and formulas that headquarters or top managers had imposed upon them. For example, both Health Ltd. and Hydraulic Ltd. anticipated that they would learn a lot by introducing some elements from the lean principles, but contrary to their American principals they had no expectations of implementing a final system. In view of 25 years' experience, one holistic system after another had constituted the template for a new direction, and the result of this process was a long experimental search for useful building blocks that could be integrated into their way of operating. In a way many, not least among shop stewards and convenors, were curious and eager to see what might be the outcome of experimentally introducing lean principles, and yet they had no expectations of being watching the coming into place of a perfect and stable new organization. After these changes others would follow and new lessons would be learned.

The second recurrent observation – derived from our case studies - was that each of the firms had managed to build up a significant ability to collaborate across traditional organizational divisions in co-creative ways. Consequently, within the four case companies, organizational members (i.e. employees, employers, users, partners and so on) at all levels were typically (and often in collaboration with their surrounding institutions) engaged in ongoing distributed search practices within and across various collaborative communities reflecting a significant ability to continuously co-create and innovate through the daily work activities. As an example we observed how operators in close collaboration with construction developed new products and processes, searched for better technical solutions together with their machine suppliers or found novel ways to solve problems for customers. The following empirical story from Brian's world of work illustrates how the re-organization of work practices, collaboration and

innovative co-creations among organizational members take place within and across various collaborative team communities:

Empirical glimpses of everyday re-organizations and the co-creation of collaborative co-designing teams

Brian is an EXPERT when it comes to Tools Ltd's most hardcore technically refined measuring machine. He has worked at the company for about six years and describes himself as a bit of a nerd and a workaholic. For example, he says: "Working with the measuring equipment makes me all electric. I'm really passionate about it .. it's my hobby as well as my work. I just can't stop …. That's why I'm so good at what I do."

Brian started off in the grinding department. After two years he wanted to learn something new and asked his boss whether he might work with the measuring machine. This was accepted and since then he has trained himself and some of his colleagues in measuring techniques. Just now Brian is instructing two co-workers. He mentors them one afternoon a week. They receive training and test the programs and settings they have learnt supervised by Brian. The training process has become a formalised 18-month program. Meanwhile Brian has developed an appetite for new challenges. He has grown tired of just instructing others without receiving any input himself. So last week he submitted a proposal to the team leader and the production manager … to break down a wall between two different measuring rooms. This will enable him to get acquainted with a new measuring machine, whilst continuing to train his colleagues on the other machine. The proposal was presented, discussed and decided within a day. The wall will be pulled down between Christmas and New Year so that the new setup is ready in January. Brian is happy with his new job role and that his idea was well received. He says, "it's cool to feel that people are listening to you".

Brian continues about his work
"I've had many opportunities to constantly learn new stuff, to widen my horizon and try out new things." Brian describes how he works with the German company, the producer of the measuring machine, sharing experience and exchanging views to build up a joint pool of know-how on the programming of the machine and its potential. He has also translated the instructions from German into Danish and from Danish into English and has adapted the manual. He has agreed with Walther to carry out other similar jobs. According to Brian these tasks take most of his spare time, but he cannot resist the challenge. He adds that it pays in the long term because the machine supplier depends on his knowledge and expertise. "This gives us an advantage when buying new machines," he says. (Extract from field notes ML2007).

Imagine Brian's story in a sea of similar individual stories, then you have a glimpse of what might be happening in organizations, where organizational members are constantly trying to change their routines, thereby incrementally reshaping the work roles and team communities of the organizations of which they

are part. The story also illustrates that the continuous improvement of one's individual job jurisdiction might occupy a greater part of the aggregate attention of employees than do the recurrent changes stemming from shifting managers and owners.

This brings us to our third recurrent observation, namely that the companies had developed an ability to distribute authority throughout the organization, hereby delegating responsibility (giving agency) to teams. In all case companies, teams were typically characterized by lateral accountability as well as intelligence creating a governance system based on mutual involvement. In most countries organizational changes and innovations are directed by the top, but in Denmark, where 60% say they work in "learning organizations" (Lorenz and Valeyre, 2003), 85% say that they are often or sometimes using their own ideas at work and working in a high discretion environment (Andersen, 2003), we can talk about widely distributed and highly participatory team-based innovative processes. These are not necessarily and most often oriented towards the invention of a new "product", but are rather oriented toward re-defining the role of the firm on a multiplicity of levels and dimensions, making the firm an ever-changing partner to other firms, new owners, etc. Yet it is a change process that has no epicentre or centre of gravitation. Even relations and networks to other firms are distributed (as 59% of all DK employees say that they work with people from other firms on a daily basis), and more employees say that they receive their job tasks from customers rather than from subordinates (Undervisningsministeriet, 2005)). Consequently we seem to be living in a world where many organizational members are constantly changing relations internally and in concert with employees in other firms. In this way, they provide bottom-up inputs to role- and routine redefinitions and to the co-creation of various team communities that constantly may contribute to renew team organizing practices.

In light of these three recurrent observations, our study of team-based work organizing practices within Danish manufacturing companies illustrates that the legacy of bipolar team models as well as prescribed definitions of teams within existing team literature lacks adequate explanations for why and how contemporary teams at work come in many shapes/modes and not only seem to operate as a bi-product of managerial action. Put differently, the literature does not take into account the diverse relational dynamics and continuously changing modes and combinations of collaborative and highly laterally accountable team practices at the empirical level of everyday work organizing. When such a community is in place it will work both on external and internal challenges in an organic and community wide basis, where managerial intervention and change is only one among many ways of triggering change processes. The course of changes will be more shaped by the constituted community of team communities than by interventions from high positions in the formal hierarchy. We therefore argue that new sensitizing, - relational and agency based - conceptual frameworks are necessary for the development of more fine-meshed understandings of the workings and co-creative dynamics of teams and teamwork in contemporary firms. Hence, we suggest that in order to further our understanding of the micro dynamics of teams and the collaborative orders they facilitate in today's corporate arena, we need to study teams as economic co-creative actors constituted through ongoing processes of intra- and inter-relational dynamics within and among team communities. In the remaining part of this paper, we discuss the possible contributions and implications of such a shift in the study of teams.

What happens to the idioms of teams when teams are taken seriously as economic co-creative actors?

By shifting away the study of teams from the ordinary by-polar classifications of teams and insisting on studying them as communities within a larger community of teams certainly implies a radical shift in our understanding of the phenomena and questions many positions within the tradition of team studies.

One of the core concepts in the debate has circled around "autonomy". And one of our core findings is that the more individual team members shift roles within the teams, and the more they participate in organizational activities outside their operational teams and become meshed up in inter-team activities, the more they can contribute to the teams' reflexive practice and with new stimuli to the internal rivalry over how to allow for continuous improvements in performance. Thus the more individuals are not only members of a single autonomous team, but are also participating in activities in the community among teams, the more they will take on the role of changing routines within their autonomous, primary teams. The more widespread the stimulus is to change role, the more team members become able to take on the roles of others and reflect on these roles. The more they take part in cross-team discussions, the more new information and new points of reflection they can introduce in the primary team. When in principle all team members become equipped with these capabilities, it becomes a game to initiate reflexive meeting-points that may lead to deliberate change and elaboration on day-to-day operational activities in the primary teams. Conversely, the more this happens, the more the members can carry back to the cross-team committees to help other teams reflect on their jobs. Thus for a community to evolve in the individual teams, it is very important that a community of deliberation is formed among the teams.

In teams where the life of the individual team is less meshed up with the larger organizational framework and gatekeeper roles of communicating/coordinating with the larger organization are allocated to a limited number of specific persons (and it seems not to make a difference whether a person is elected by the team or appointed by top management), the "passive" ones become a major issue for these "activists" as they are inactive and thus not committed to the ongoing reflection on past and current practices. In this situation, employees become divided into typically three diverse positions: the enthusiasts, the lukewarm defenders with an ironic distance, and the opponents that prefer to raise their voices outside the reflexive meetings, as we observed at an early stage in Spirit Ltd. Whereas the former group tries to create a formal system that sustains the evolution of a community of reflexive practitioners within and among the formal teams, the latter group tries to create an informal community (very similar to the workers collective of Fordist factories) in opposition to the formal system. Among them they fight for making a coalition with the lukewarm. In such a system it is fairly difficult to develop a reflective community.

Thus a community of deliberation in its continuous self-reflection is dependent on its interdependence with others and thus breaks with the first rule, which theorists have set for the optimal function of socio-technical teams, namely that they must be granted relatively high autonomy over a discrete set of tasks. Second, it breaks with the rule that within the teams, individual members should be granted fairly high autonomy over tasks that involve both planning and execution. Rather the evolution of a community of deliberation is dependent on involving all, also opponents, and on giving them several roles to play in which their own practices are called into question and from which they are obliged to question others.

Thus the better functioning team communities have broken another, very important, rule in the team literature, namely that of role conflict (Kahn et al., 1964). In this view role conflicts are sources of conflict and ambiguity and therefore lead to stress, which should be avoided. This is also why Burns and Stalker (1961) see the "organic organization" as only temporary possible and utterly unstable, and see

formalization, hierarchical role division and rule-bound behavior as ways of stabilizing the organization and enabling the life of individuals and teams. A community of deliberation around team communities seems to be another way of dealing with the problem by "institutionalizing" that the individual plays several roles – so that all individuals become triggered by continuous role conflicts.

Finally, all the firms in our study break with the rule that measuring performance and relating it to inducements has negative effects on teams, when it comes to the community dimension. The literature informs us that the more this is the case, the more the teams should become part of a neo-Taylorist rather than an anti-Taylorist form of team dynamics (Pruijt, 2002). But our cases seem to indicate that the more elaborate measures have become, the better does the community of teams improve not only its performance, but also its internal communication over performance. Without a system that can monitor the effects of improved ways of performing routines and roles and detect the consequences of making changes in role matrices, the process of deliberation within the community of teams communities will lack an apparatus for navigation. Perhaps performance measures need not be tied to inducements in pay – and actually this seems to cause a lot of trouble, when inducements are not encompassing the entire community of team communities.

A number of similar observations that conflict with the usual dichotomies could be made, but we think these suffice to indicate the need for a radical re-interpretation of the dynamics of team-based work organization. This we shall try illustrate next.

Evolutionary dynamics of communities of team-communities: A new challenge to comparative business studies

In the cases studied, the current "design" of the team-based system is not an outcome of a discrete planning process. In two of the cases, experiments had gone on for around a decade, and in the other two experimentation dates back to the early 1980s. None of the cases is expected to have found a final form. In strong opposition to the concept of two dual ideal-types of each their defining characteristics, the four populations studied are strongly aware of having been involved in a long lasting, and in principle endless, processes of experimentation. Furthermore, the participants seem to share the view that in these processes they will have to change opinions and points of departure many times. In a way the most radical shift from previous Taylorist ideas is that there is no such thing as an "ideal state". Our study seems to indicate that communities of team communities might evolve from less communitarian to higher forms, indicating that there is some kind of "route to improved practice", which is not, however, intentional or cannot be planned. On the contrary the process unfolds as a sequence of highly frustrating events, which only in retrospect reveal their benefits and help create a constituting narrative of the firm – or the community of team communities.

In the first phase of developing a team-based organization, there are a set of typical problems to over-come. Accepting that the "work organization" is an ongoing experimental project is not easy for people trained in the logics of Taylorist management practices (e.g. optimatization of routines for overall productivity gains and measuring time in order to optimize on single routines and jobs). In all of the studied cases, the genesis of team based work has been painful and entailed role conflicts, ambiguities and stress, and in the early phases opponents among the workers have been able to create coalitions with middle managers and mobilize support from the group of only lukewarm defenders. If such a coalition had

become the dominant coalition in our cases, we would not have been able to visit these plants to study them as examples of team-based organizations. In three of the cases, the experimental process of team-based organization has only been continued because top managers were among the enthusiasts, were able to accept that progress might involve temporary drawbacks and that some of the sources of renewal are discontent, stress and conflict. In one of the cases, the enthusiasts among top management built a coalition with the convenor and shop stewards and enlarged the coalition by appointing middle managers in support of experimental processes. In another case, the top manager appointed a project leader among the crew that he knew had strong viewpoints concerning handing over discretion to workers, so he could speak the voice of his colleagues when opponents made troubles. In yet another case, the owner was so strongly in favor of the company as a community that he modeled the entire firm along the ideas of two communitarian organizations: the village and the fishing boat, which both provided highly legitimate and visionary metaphors to make the "crew" join the exploration.

In an earlier study, (Kristensen, 2003) we have shown that in the Danish case convenors have been potentially important for visionary managers to form partnership with. Such a partnership would then become a powerful and legitimate agency that could implement reforms of the workplace and convince external and internal stakeholders to support the process. This partnership, of course, plays an important role during the initial process in making reforms deal with existing problems of the workplace. But when the reform process gradually gives way for the separation of the firm into enthusiasts, lukewarm defenders and opponents; when frustrations occur because of performance drawbacks, and when role conflicts give way to frustrations, the convenor's support to reform managers has probably played a prominent role in continuing the experimental process and not retreating to a more traditional form of work organization. But building the reforms on such supporters also means that top managers lose control over the process. The experimental process gets it own momentum and managers' jobs become defined and delegated from this communitarian team experimentation rather than vice versa.

Perhaps it is only under certain social conditions and institutional legacies that a community may evolve from a team-based work organization. It is easy to imagine that in places where enthusiastic managers struggle in solitude for the evolution of a team-based HPWO, they can easily start to see performance control as a means to overcome resistance and thereby introduce the measures as a new post-Fordist form of discipline. On the other hand, in situations where the informal worker collective is strong, the same measures and teams may give a new impetus to maintain the social oppression among peers that make all conform to established "codes of conduct" under the banner of "Work Autonomy". Thus the evolutionary dynamics of team communities and communities of team communities are highly dependent on the contextual framework, e.g. the national business system and/or the national industrial relations system in which it takes place.

In Denmark, where managers have formed the mentioned partnerships with union convenors, this partnership frequently takes over the momentum and shifts the nature of the organization. This can happen by design, e.g. by creating among the primary teams, overlapping teams which discuss matters of common interests (improvement of health and safety, psychological working milieu, cross team logistics, further training, etc) so that each team member is given several roles to play – roles that are both reflecting functional needs of the organization and the institutional landscape in which the emerging community of team communities is embedded. Or it may grow out of an evolutionary logic of partnering. For instance in countries with a tradition for negotiating in Works Councils, managers will feel obliged to, before initiating new initiatives, bringing up the issue in the WC to the effect that the WC becomes overloaded with issues.

This might give rise to the formation of a number of subcommittees for which the shop stewards and convenors must recruit other workers to participate in negotiations over an explosive number of novel issues. Gradually, a system emerges in which team members participate in many overlapping committees, reflexive communication goes on in many places, and no managerial position is able to be neither fully in control, nor fully informed, why it might be self-destructive for managerial discretion and legitimacy to act hierarchically. Managers would rather have to search for a role by engaging themselves in these larger negotiation processes, which then become the de facto activities that lead to the delegation or redefinition of task allocation among the primary or operative teams, including in the last resort also managerial teams. In all the cases we have studied, the mutative formation of such a system has been spontaneous and only a few are able to draw up a list or a hierarchy of such "committees".

This ongoing system of negotiation is where deliberation over missions, tasks and goals – and of new routines - are done for the teams and their interaction, but as the system is invisible, there seems to be no deliberation over the apparatus of deliberation. Currently, such a system is concealed in and has taken over the informal sphere of the organization. It is, however, quite obvious that if teams, through partnerships between convenors and managers, have gained such an important role in the continuous evolution of the firm, then managers can only regain control by controlling and refining deliberately the process of deliberation. However, we expect that in a system that has developed through an evolutionary process to create a rich flora of polyarchical committees of different teams and levels of the organization, it would be most logical to create committees that deliberate over deliberation as negotiating bodies where the parties decide on basis of the mob of ad hoc committees, which to preserve or to institutionalize and which to abandon, when their tasks have been concluded.

In such a system, where the order is negotiated from a need to involve a plentitude of communities, the teams seem to hold as much agency as does the managerial hierarchy. Whether they will hand over the role of agency to the firm or keep it within the team depends on how the community of team communities (including the diverse managerial teams) sees and defines the situation. Ongoing deliberation would, in different situations, allocate to different teams shifting hierarchical roles and eventually also position managerial teams in classical hierarchical positions.

One of the perhaps unexpected advantages of bonuses, profit sharing and co-ownership is that firms have been pushed to become much more financially transparent with the introduction of such schemes. Of course, the team analyst, who sees such means as pointers for the work organization to evolve in the direction of neo-Taylorism, is right in interpreting such inducements and measuring instruments as pressures towards higher performance, and they may also institutionalize rivalry among teams and among team members mutually. But this perspective simultaneously neglects that such schemes also provide participants in the community of team communities with very important and timely information, without which they would have to imagine much more intuitively the situation of the firm. In the cases we studied, people at all levels were surprisingly well informed about how well the teams perform comparatively and how the total outcome translates into the performance of the entire firm. The team members get information about individual and team performance enabling them to assess whether they should "try harder" individually, to consider whether their team has much to teach or a lot to learn from other teams. Thus in day-to-day dealings such schemes furnish the members with questions and a willingness to search for answers when they meet with representatives of other teams in bodies of ongoing systems of negotiations. No doubt such inducement systems lead to operational rivalry, but they also trigger the possibility of reflexive collaboration. When the figures show unsatisfactory performance of the entire firm,

the situation raises the question of who should take agency to cope. It may trigger the need for fully-fledged involvement and a multitude of diagnostic search processes so that negotiations can establish at what levels to look for solutions and who should hold natural agency.

The evolutionary pattern we have sketched above is dependent on a balance of power between hierarchical managers (that gradually becomes entangled as teams into the community of teams, without loosing the capability and potential of being granted a unique role in the evolutionary process) and employees, eventually expressed in the standing and role of union representatives. Control and coordination go on at many levels, and it is left to the individual teams to look for the driving force for developing new routines as well as implementing them.

Readers may resist accepting this evolutionary logic from the expectation that by definition managers hold a veto, as they might decide to claim their right to fire their "opponents" or to close down the entire plant. We have no difficulty in accepting this point of view at a more general level, and would expect it to happen often. After all managers are seen from the outside, at least, to hold formal responsibility and to have hierarchical control – e.g. from shareholders, foreign headquarters, banks and other financial institutions, regulatory authorities, inspectors, certification bureaus, etc. – and there is an immense pressure on them to make themselves look professional and responsive to the general waves of mimetic isomorphism that originates from the business press, -schools and -consulting (Meyer and Rowan (1991)). Moreover, in the cases we have studied the managerial groups are highly volatile, are frequently shifting positions, not only within the firm but also move across firms. Very often they have very limited knowledge of the complex ecology that is constituted now as a community of team communities. What they do have, however, is a set – often determined by the cohort of business students they represent - of templates for managerial interventions and solutions that they think may solve the problems that the firm encounters. In the firms we have investigates managers do impose such templates on the organization – almost as self-assured about their hierarchical role as were the Penrosian managers of the past. Informed by our case-studies, what happens, however, with these templates, is that they become captured by the deliberating team and cross-team committees that react to these in an experimental way that spurs the process of reflecting on past practices, gives new impulses for recasting roles, etc. that set in motion processes which, on the one hand, change the role matrix of the firm, but on the other hand, highly activate processes that make highly busy the community in which the teams are embedded.

Paradoxically, then, managerial action leads not to the design of new routines and routine integrates, but rather evokes a process of self-doubt and –reflection that triggers processes where old ways of performing roles are questioned, evaluated and assessed to effect a clearer diagnostic sense of in what and where the strengths and weaknesses of the current constitution of the community of teams lie. Empirical glimpses of such processes we observed in all four case-companies, but there is no doubt that traditional students of teams would have seen these moments as ruinous to the very autonomy of teams, role coherence, etc. whereas we would gradually learn to understand that these were the great moments for expanding the role of the community of team communities.

With these remarks we can return to some of the problems that we raised concerning the cases that had evolved more elaborate forms of deliberating communities of team communities. We said that they had not developed deliberation of their systems of deliberation. This, however, does mean that they are communities without governance. The source of governance, however, rather remains with the multinationals that owe them than with the managers that are expected to run them. As Mueller and

Purcell (1992) and Kristensen and Zeitlin (2005) have clearly demonstrated, MNC HQs play out subsidiaries against each other through a continuous flow of benchmarks in association with investment and head-count bargaining. The rationale underlying this flow of shifting benchmarks is to force the subsidiaries to evaluate themselves and continuously question their own practices in the light of best practices from "somewhere". In many ways, this governance form stimulates the ongoing deliberations of the community of team communities within the subsidiary, as it spurs the ongoing process of casting doubt on its current figuration. But the restless mutant, external flow of questions and reporting make it very difficult to imagine that it becomes possible for the community as such to reflect on its reflective practices and through this to evolve a deliberate organization of deliberation. For this reason we hold it unlikely that communities of team communities within this formal frame can develop into the dominant agency and radically undermine the firm as agency. On the other hand, MNCs force their subsidiaries to make increasingly use of subcontractors, to the effect that they force subsidiaries' communities of teams to collaborate across the formal boundaries of firms. Therefore, what the agency of teams becomes strongly depends on how they enable deliberate relations among firms at the local or regional level. This again is a matter that differs among regional and institutional settings and should be studies comparatively.

As has been already indicated above, the evolution and character of "communities of team communities" has drawn on many distinctive institutional features of the Danish system, for instance the culture of negotiation and collaboration among employers and unions, the network among firms in a small enterprise economy, etc. We could also have emphasized the role of further training, as this system has made it possible under periods of intensified change for employees to make role-changes and to cultivate new forms of quasi-professions associated with the evolution of team-based organizational forms. Thus to gain knowledge of the general evolution of these organizational forms we are in bad need of a new wave of comparative studies.

Furthermore, it is possible to imagine that in some countries, already in the process of changing from distributive bargaining towards integrative bargaining (Sisson and Marginson, 2000), unions and their local representatives start to master the language of benchmarking and the methods of continuous improvement and turn these into instruments for negotiating evolutionary dynamics to take into consideration issues such as human improvement and local economic prosperity, that is, how improvement within a firm may contribute to the prospects of a region in terms of finding new comparative advantages. In such hypothetical cases it is possible to imagine very interesting deliberations over forms of deliberation as they might constitute examples of situations in which communities of team communities in the wider sense of the term set goals for capital, rather than vice versa. Comparative search for such cases and their investigation would provide very useful material about the wider perspectives of the changes in work-organization that we are observing. A search which also would provide insights into the future possibilities and implications of taking teams seriously in the co-creation of economic agency

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