TEMPORARY ORGANIZING: INTEGRATING ORGANIZATION THEORY AND PROJECT MANAGEMENT

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ABSTRACT*

As a practical and theoretical field, Project Management is usually described as a set of models and techniques for the planning and control of complex undertakings such as construction, R&D, telecommunications etc. The abundance of mathematical tools derived from Operations Research is, despite efforts like PMBOK (Project Management Body of Knowledge), only to a limited extent complemented by advice on organizational issues. This paper sets out to make an inventory of the organizational research on projects and to propose new directions for studies on Project Management.

Traditionally, projects have been studied from three main perspectives; projects in the organizational structure, organizational communications and projects, and project leadership. There are also "minor" research themes such as cultural and network theories, and the new concept "Management by Projects." The three main shortcomings of the organizational research on projects can be formulated as (1) the research on project management is not empirical enough, (2) projects are seen as tools, not as organizations, and (3) project management is seen as a general theory. These shortcomings can be overcome by studying different types of temporary organizations instead of projects, and by theorizing on 'project organizing' instead of the usual 'organization' perspective.

In a 'project organization' perspective, the main focus of interest is Planning, Control, and Evaluation, i.e. themes sufficiently dealt with in existing literature. The 'project organizing' perspective argued for in this paper focuses instead on Expectations, Action and Learning as alternative themes, viewing projects as subjective realities, incessantly enacted by individual project members.

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BACK TO THE FUTURE: THE NATURE OF PROJECT WORK

Before (and perhaps "after") Industrialism, the natural way for humans to produce and consume, to organize and participate was through projects. Apart from the eternal struggle for food and a roof over one's head, all types of activities were in fact projects. Constructing pyramids, invading England, discovering the New World; when anything important was carried out, it was a unique, complex undertaking limited in time and scope. Business activities were also often organized as projects; craftsmen and shipowners offered unique products for unique purposes. The elements of product standardization were few and seldom conditioned by explicit intentions. The standardization of human work was, on the other hand, a widespread phenomenon long before Industrialism; people have always been expected to possess different skills and, consequently, expected to specialize in different sub–tasks when executing work requiring the efforts of more than one person.

The legitimacy of Industrialism was built upon the way products were made accessible to the common man; low pricing by economies of scale by standardization of products. Standardization of products was in turn made possible by new ways of constructing machinery (iron and steel) and new ways of distributing power to production sites (steam engines and electricity). Frederick W Taylor (1947/1911) and Max Weber (1972/1921) added the necessity of standardizing work tasks and specializing workers

to the industrial agenda; if machines are more efficient than humans, then humans should work like machines. Although this reasoning came to pervade society as a whole, projects were still important occurrences in two respects; (1) investments laying the ground for mass production (such as railroads, factories, steel mills etc.) required project management skills in their implementation (Rosenberg & Birdzell, 1986), and, (2) life–cycles of products, organizational structures and technologies became shorter and shorter, thus emphasizing the need for projects as an instrument to achieve continuous improvement and innovation (Kanter, 1983). The efficiency of mass production is dependent upon isolation *vis–à–vis* the environment and protection against heretical ideas from within; disturbances and freethinking are referred to temporary work settings for further exploration. If industrialism in the guise of mass production can be said to require stability in production systems, project management thus can be said to be the way to evoke change in/of these systems.

Today, Western Europe and North America are facing the end of the Industrial Sector—as the main employer. The Service Sector (which is, in fact, producing unique products for unique customers) has become the dominant sector in many countries. Indeed, remaining industries are turning to the production of complex, customized products in order to ensure profitability; mass production of cheap, simple products is re–locating to low–cost developing countries in Asia and South America. Project work thus seem to become an increasingly prevalent phenomenon in both the industrial and service sectors in the West, and the need for continuous improvement and innovation will accentuate this development. Moreover, it has been argued that human life in itself has become a project, aiming at the production of self–fulfilment and maturity (Giddens, 1991). Projects as ways of producing (besides projects as ways of implementing constructing and innovations) can be said to be a return to the past, but also a necessity for the future.

In most Project Management literature (cf Butler, 1973; Chadha, 1981; Cleland & King, 1983; Dinsmore, 1984; Frame, 1987; Gaddis, 1959; Harrison, 1985; Lundin, 1990; Morris & Hough, 1987; Nathan, 1991; Pinto & Prescott, 1988; PMI Standards Committee, 1987), the project is usually defined as:

- a unique, once–in–a–lifetime task,
- with a predetermined date of delivery,
- being subject to one or several performance goals (such as resource usage and quality),
- consisting of a number of complex and/or interdependent activities.

Although all the elements of the definition can be questioned (cf Engwall, 1992; Packendorff, 1993)—as is the case with most general definitions—the notion of the project as a given, unique task, time–limited and complex, being subject to evaluation, has given rise to a field of knowledge in the border–land between theorists and practitioners, a field of theory in between Technology and Business Administration. The field is usually termed "Project Management," a concept which is defined as follows:

"Project Management is the art of directing and coordinating human and material resources throughout the life of a project by using modern management techniques to achieve predetermined objectives of scope, cost, time, quality, and participant satisfaction." (PMI Standards Committee, 1987: p. 4–1)

Project Management is a field with its own professional associations (PMI and INTERNET), its own scientific journals (*Project Management Journal* and *International Journal of Project Management*) and its own conferences and symposias. It is a field that is traditionally linked to normative techniques and methods for project planning and control, developed by the consultants and engineers of industrialism (Engwall, 1992). As Kanter (1983) points out, project work will in the future be a way for organizations to let loose the creative forces within themselves rather than to plan, a way to enhance participation rather than to control. Key–words like "learning," "leadership," "renewal," and "innovation" will have to be as usual in Project Management vocabulary as they have been in Organization Theory for years. It is thus the aim of this paper to investigate how Project Management and Organization Theory are—and further can be—integrated, and to propose research methods, theories and foci for further empirical studies.

PROJECT MANAGEMENT AS A THEORETICAL FIELD

One of the basic assumptions about projects is that the project task is clearly defined and unambiguous (Burke, 1992; Frame, 1987; Lock, 1992). By viewing the task as something externally given, the efforts of the project manager can be directed towards the efficient use of resources and techniques in accordance with the Project Management definition quoted above. Having defined

the task and the various goals restricting the work of the project organization, a Work Breakdown Structure (WBS) must be constructed. The aim of the WBS is to identify the activities (or work–packages) necessary to perform in order to fulfill the project task. The WBS serves the same purpose as specialization and division of labour in mass production planning; to assign different tasks to different people by identifying controllable action sequences. Most methods for project planning and control are in fact different ways of finding the optimal sequence of activities and of allocating resources to them accordingly. (Nathan, 1991) Following the leading metaphor in the managerial disciplines, the General Systems Theory (cf Cleland & King, 1983; Roman, 1986), the project is seen as a whole, constructed out of its parts and the interdependencies between them. The better the structuring of the parts, the better the whole.

The first—and most widely used (Higgins & Watts, 1986; Liberatore & Titus, 1983)—planning technique was the Gantt chart, constructed by Frederick W Taylor "disciple" Henry L Gantt just before World War I. The Gantt chart is a pedagogic way of showing when different activities take place in time, making planning of parallel activities easier. The problem of the Gantt chart is that resource allocation is excluded, which in turn means that interdependencies between activities in terms of resources are not included. Two parallel activities may use the same machines and people, but since the Gantt chart offers no way of displaying this fact, the efforts to co–ordinate may be insufficient. Although these obstacles to efficient project management could have been overcome by the use of the Harmonogram method invented by the Polish scientist Karol Adamiecki in 1931, it was not until the development of the network techniques CPM and PERT in the 1950's that powerful tools for time plannning and resource optimization became available to project managers (Nathan, 1991).

The network planning techniques CPM and PERT were developed independently at the end of the 1950's; CPM for stable, industrial application settings at the chemical giant DuPont, PERT for the vast and almost confusingly complex Polaris project. Both models are in fact extended Gantt charts, displaying which activities involve interdependencies, what the nature of these interdependencies are. The most important interdependency is the sequential one, i.e. which activities must be completed in order for the next one to start. The longest sequence of activities (in terms of total time) leading to the completion of the project is called the Critical Path; any delay anywhere in that sequence will cause the same delay to the whole project. Activities on the critical path are thereby the most important ones in terms of monitoring and control.

The CPM (Critical Path Method) is, like the Gantt chart, constructed from the assumption that the completion times of all activities in the project are possible to assess beforehand, and that these completion times are possible to alter within certain limits by altering resources allocated to the respective activities. Prolonging an activity thus implies a lower variable cost for that activity, but the fixed costs of the project—assumed to accumulate by linearity during the whole completion time—will increase insofar as the total project time increases. The mathematical problem of the CPM is thus to find the optimal ratio between fixed and variable costs given that stipulated time limits are not exceeded. (Wiest & Levy, 1969)

Developed for the spectacular and very successful Polaris project, the PERT (Program Evaluation and Review Techique) gained an extraordinary reputation from the very beginning. The success of the Polaris project, with its more than 9,000 different contractors and sub–contractors to be co–ordinated, was to a great extent ascribed to the PERT (Engwall, 1992). Unlike the CPM, the PERT is based on the assumption that activity times cannot be estimated in ways other than as a normal distribution around an assumed average time. The PERT display thus not only provides the project manager with resource data and a critical path, but also a measure of risk for the whole project. The greater the time variance of an activity, the greater the need for close supervision of that activity. (Wiest & Levy, 1969)

Since then, the CPM and the PERT have appeared in numerous incarnations, all of them designed to overcome one or more of the practical problems caused by the simplicity of the original techniques. One further step has been taken by proposing the GERT (Graphic Evaluation and Review Technique), in which not only the completion times of the activities, but also the probability of some activities ever taking place within the project is seen as hard to estimate(Neumann, 1990). By introducing GERT, theorists created a tool for scenario building and evaluation, a tool that goes beyond the usual planning procedures (Nicolò, 1993). The fact that projects have different life–cycle stages and that each of these stages requires different management methods, control techniques, and resources has also been acknowledged; apart from being executed, projects are also conceptualized, developed and finished (Cleland & King, 1983; Pinto & Prescott, 1988; Pinto & Prescott, 1990; PMI Standards Committe,

1987).

Despite many efforts made in order to develop the Project Management concept (cf PMI Standards Committee, 1987), many theorists and practitioners still view the field as a number of planning and control techniques. The PC revolution during the 1980's brought to the market an abundance of sophisticated project management software, thereby making it possible for project managers to apply the techniques even to small and medium–sized projects. The renaissance of planning techniques (Dworatschek, 1989), in combination with efforts to develop expert systems for project management (Schelle, 1990), has revived a lot of the notions about Project Management as a technical discipline. Since empirical research shows that plans (and planners!) often live a life of their own (Archibald, 1990; Thamhain, 1987), that planning procedures primarily serve the function of legitimizing the project (Christensen & Kreiner, 1991; Sapolsky, 1972), that the new and sophisticated planning techniques are rarely used by practitioners (Higgins & Watts, 1986; Liberatore & Titus, 1983), and that precise plans are not always to be recommended as management tools (Engwall, 1992; Sahlin–Andersson, 1992), Organization Theory apparently needs to be brought back as a central discipline.

During the 1980's, the need for structuring the project management knowledge of researchers and practitioners became obvious; apart from the abundance of advice on planning and control techniques, literature in the field covers topics as diverse as Risk Analysis, Project Leadership, Investment Planning, Group Dynamics, computer–supported project management, Human Resource Management, and so forth. The outcome of the structuration work that followed an initiative of the PMI (Project Management Institute), resulted in the *Project Management Body of Knowledge (PMBOK)*, in which all knowledge on Project Management is assumed to be possible to classify under the following headings: (1) Scope Management, (2) Quality Management, (3) Time Management, (4) Cost Management, (5) Risk Management, (6) Human Resources Management, (7) Contract/Procurement Management, and, (8) Communications Management. The organizational aspects covered under the "Human Resource Management" (HRM) heading are Administration (Employee relations, Compensation and Evaluation, and Gov't [sic!] Regulations and Evaluation) and Behavioural (Individuals outside the project, Team members, and The Project Team). (PMI Standards Committee, 1987) The lions' share of literature on organizational aspects of Project Management deals with behavioural problems, mostly in the form of a chapter in handbooks otherwise describing in detail planning and control techniques (cf Archibald, 1992; Dinsmore, 1984; Frame, 1987; Harrison, 1985; Lock, 1992; Ritz, 1990; Roman, 1986; Silverman, 1987). The research on which the advice found in these books is built is explored in the next section.

ORGANIZATION THEORY IN RESEARCH ON PROJECTS

Roughly, efforts spent on researching the organizational aspects of Project Management can be divided into research on (1) organizational structure, (2) communication, and (3) leadership/motivation. Most of this literature was published after 1965, making the research a good reflection of some of the main themes in Organization Theory during the 1960's and 1970's.

ORGANIZATIONAL STRUCTURE. A natural consequence of viewing projects as temporary is that they cannot be a part of the ordinary organizational structure. In the traditional functional organization, projects are an "excuse" for direct communication between units at the same organizational level; otherwise, all communication follows the "line of command." Projects are therefore seen as organizations overlapping a number of subunits, organizations which when displayed in charts form a matrix–like image of the organizational structure (for overviews of matrix research, see Knight, 1976; Ford & Randolph, 1992). Some of the advantages of matrix structures are that no additional personnel have to be hired for project work only (Middleton, 1967), that free–flowing horizontal communication increases the flexibility and innovative capacity of the organization (Gaddis, 1959; Larson & Gobeli, 1987; Tushman, 1978), and that projects are better off if led by a person able to devote all of his/her time and energy to them (Dessler, 1986).

The major drawback of matrix organizations is the "authority–gap," i.e. the gap between the project manager's full responsibility for the project and his/her incomplete authority over the resources necessary for its successful completion (Hodgetts, 1968). Conflict usually arising between project managers and functional managers concerning resources and authority has become the subject of a number of studies in different contexts, studies inquiring possible solutions to conflict and related performance issues (Butler, 1973; Galbraith, 1973; Goodman, 1967; Hodgetts, 1968; Katz & Allen, 1985; Payne, 1993; Reeser, 1969; Thamhain & Gemmill, 1974; Thamhain & Wilemon, 1975; Wilemon & Cicero, 1970). However, since most organizations have abandoned the functional organization as the overall structural

principle, a more profound view of matrix organizations is needed. The matrix organization may be seen as one of many possible values on a continuous scale ranging from a downright functional organization (where all tasks are performed within the normal structure) to the loosely coupled project organization (where personnel are recruited for projects only, to go on to other organizations after performing their respective sub–tasks) (cf Archibald, 1992; Larson & Gobeli, 1987; Midler, 1992).

COMMUNICATION. Communication is a central theme in research on matrix organizations; communication between the project and its environment, communication within the project. Originally a rather instrumental, top–down oriented discipline, research in organizational communication has to an increasing degree become the study of the information flows taking place *de facto* in organizations. Traditionally, the need for communication within the organization is seen as determined by the complexity of the tasks; the more interdependencies between activities, the greater the need for task–relevant communication (Thompson, 1967). Projects are thus dependent on communication in order to function (Galbraith, 1973). Furthermore, projects can be a way of bringing about communication in organizations with sharp dividing lines between the sub–units (Kanter, 1983).

The common conclusion of the project communication studies undertaken is that project effectiveness is strongly correlated to the amount of task–relevant communication in the project organization (cf Katz, 1982a; Katz & Allen, 1982; Katz & Tushman, 1979; Tushman, 1978). Communication with the project's environment (i.e. parent organization, clients, authorities etc.) is also stressed as vital to project effectiveness; the insularity of project groups usually increases over time (Katz, 1982a), thus advocating the appointment of "gatekeepers" responsible for external communication (Ancona & Caldwell, 1992; Katz & Tushman, 1981; Souder & Moenaert, 1992; Tushman, 1977; Tushman & Katz, 1980).

LEADERSHIP/MOTIVATION. Despite the abundance of normative advice on project leadership, empirical studies on what project leaders do and why, are rare occurrences. A possible reason for this may be that the limited life–time of the project puts the focus on performing the task, making reflection on leadership *per se* an unnecessary waste of time:

"Since a temporary system operates over a limited period of time, there is not much motivation to investigate the management problem in itself; instead the focus is on the task problem, so that one learns little about how to manage temporary systems from actually running them, as compared to what one might learn from running a more stable, functionally organized system." (Goodman & Goodman, 1976: 494)

Projects are often conceived of as a way of attaining the rationality that the ordinary bureaucracies cannot maintain, mostly because project leadership is seen as task–oriented rather than relation–oriented (Bryman *et al*, 1987a; Goodman, 1981). On the other hand, projects are also seen as a way to enhance participation and workplace democracy; by constructing a new and temporary organizational setting, hierarchies in the ordinary structure can be left behind (Goodman, 1981; Kanter, 1983). This duality is a theoretical as well as a practical problem: The project manager is supposed to be task oriented, but project effectiveness increases as the leader becomes more relation oriented (Bryman *et al*, 1987a). The result of this duality is that project managers are confronted with an abundance of requirements concerning his/her qualifications and character. It appears that it is the destiny of the project manager to be a Jack–of–all–trades between corporate management and project specialists (Gaddis, 1959). The project manager should be able to motivate, to formulate visions, to apply a participative management style, to create an agreeable working climate, to solve conflicts, to negotiate with external contacts, to co–ordinate and integrate, to enhance internal communication and to find relevant information and knowledge (cf Archibald, 1992; Avots, 1969; Barczak & Wilemon, 1989; Barker, Tjosvold & Andrews, 1988; Briner, Geddes & Hastings, 1990; Christensen & Kreiner, 1991; Dinsmore, 1984; Fabi & Pettersen, 1992; Goodman & Goodman, 1976; Gullett, 1972; Jabri, Payne & Pearson, 1986; Jessen, 1992; Jonason, 1971; Hill, 1977; Katz & Tushman, 1981; Owens & Martin, 1986; Roberts & Fusfeld, 1981; Roman, 1986; Silverman, 1987; Slevin, 1983; Thamhain & Gemmill, 1974; Tushman, 1978). It should be noted that most of these studies in one way or another use the matrix structure as a point of departure; in–depth studies on "pure" project organizations (such as Morris & Hough, 1987; Stinchcombe, 1985a, Stinchcombe, 1985b) are quite exceptional.

OTHER THEMES. Apart from these main themes, there are also a number of "minor" ones (in terms of publication intensity). The cultural metaphor evolved during the 1980's has left traces

in Project Management theory, and so has Network Theory. The Project Management theorists have also coined a phrase for viewing corporate managers' work as handling a portfolio of projects, "Management by projects."

Cultural theory. According to Arvonen, 1989, theories on culture in organizations can be divided into three categories: (1) Organizational culture as a part of the surrounding culture, (2) Organizations as cultures, and (3) Culture as a sub–system of the organization. Project Management theorists are mostly preoccupied with the third category, even though international co–operation within the field has implied numerous attempts at "internationalizing" the Project Management concept (i.e. category 1). In literature, project culture is seen as equivalent to flat, flexible structures with a lot of projects going on, encouraging uncommon career paths (Firth & Krut, 1991; Heitger & Sutter, 1990). Projects are therefore usually not seen *as* cultures; ever since the glory–days of the socio–technical "school," projects have been viewed as the individuals' task–related context, while the surrounding permanent structures have been assumed to provide personnel with their emotional affiliation (Miller & Rice, 1967; Turner, Clark & Lord, 1990). The limited time available for building a culture within the same aggregate of people as the project organization, seems to be the argument for not studying projects as cultures. One might as well argue for the opposite view: All social systems do exhibit norms, beliefs etc., irrespective of its extension in time (Palisi, 1970).

Network Theory. As is evident, projects are usually studied as temporary undertakings within more stable organizational environments. However, many major projects are in fact carried out outside the domain of one single organization; a lot of different partners may form a temporary alliance to bring about the completion of a desired common goal. One may thus speak of *inter–organizational projects*, thereby terming projects in matrix structures *intra–organizational projects*. One example of such projects is major R&D efforts (Wissema & Euser, 1991), another example being big construction projects (Hellgren & Stjernberg, 1987; Sahlin–Andersson, 1992).

Inter–organizational projects are more complex than intra–organizational, since the number of participating organizations (and thereby the number of different goals and inducements) is usually bigger. To avoid power struggle within the network (cf Hellgren & Stjernberg, 1987), the use of ambiguous and vague goals is recommended in order to enable partners to read their respective objectives into the project (Sahlin–Andersson, 1992).

Another use of the network metaphor is to explain the dynamics of project organizations, from the individual actors involved and the relations between them. Such a network perspective, like e.g. a political perspective, may be far more enriching in terms of understanding project organizations than the usual implementation studies. (Borum & Christiansen, 1993; Buchanan, 1991)

Management by projects. In accordance with recent notions on corporate leadership as the management of "issues" through political processes, it has been argued that top executives are in fact managing a portfolio of "projects." Apart from the clearness such a view might add to the work situation of the executive, his/her ability to evoke change in the organization can be enhanced. To gain legitimacy, leaders choose a limited number of vital issues to pursue; by being identified by these issues, the leader has shown his/her *raison d'être*. An obvious example of this was the national campaign against alcoholism initiated by Mikhail Gorbachev soon after his installation as President of the Soviet Union—notwithstanding any prospect of success, the campaign showed that a strong leader with new ideas had taken seat in the Kremlin. The major drawback of 'management by projects' is the meta–level; is there really any underlying strategy connecting the respective projects? (Lundin, 1990)

WHAT IS MISSING IN PROJECT MANAGEMENT RESEARCH? In terms of theoretical coverage, projects are well researched and analyzed. One might argue that further research on project organizations should aim at refinement and compilation of available knowledge. There are, however, three major objections to such a line of argument; one is empirical by nature, the other two theoretical.

Not empirical enough: Projects still do fail. Despite all the advice and knowledge available, projects still fail in various respects (cf Buchanan, 1991). By compiling and analyzing public reports on 3,500 investment projects, Morris & Hough (1987) found cost overruns between 40 and 200 per cent to be the rule rather than the exception:

"Curiously, despite the enormous attention project management and analysis have received over the years, the track record of projects is fundamentally poor, particularly for the larger and more difficult ones. Overruns are common. Many projects appear as failures, particularly in the public view

[…]. Projects are often completed late or over budget, do not perform in the way expected, involve severe strain on participating institutions or are cancelled prior to their completion after the expenditure of considerable sums of money." (Ibid: 7)

Literature on project failure usually explains the fiascoes in terms of non–rational decision–making and/or bad planning and control (Hall, 1980; Janis, 1972; Kharbanda & Stallworthy, 1983; Morris & Hough, 1987; Persson, 1979; Segelod, 1986). It appears that projects have a tendency to develop an "inner logic" of their own, to slip out of the hands that created them. With few exceptions, literature on project mismanagement fails to offer profound theoretical explanations of phenomena such as deviations from plans, cost overruns, goal obsolesence and conflicts within projects or with their environment. Without such explanation, project planning and control will continue to fail. Consequently, empirical studies on what is actually taking place in project organizations are still needed. One interesting theory indeed developed and empirically tested is the theory on escalating commitment (the commitment to a failing course of action increases as the degree of failure increases) (McCarthy, Schoorman & Cooper, 1993; Staw & Ross, 1978). Such theories are, however, far beyond the PMBOK; abandoning the notion of the project manager as a *homo economicus* would be to question the very foundation of present knowledge on project planning and control.

Projects are seen as tools, not as organizations. A major consequence of viewing project management from the General Systems Theory is that the project becomes a tool, a means to attain ends at higher levels in the system. This is a view that corresponds to the classic notion of the organization as a machine (Morgan, 1986), a view that has been surprisingly persistent in the field of Project Management. A product development project is thus a means to achieve market share–ends of the initiating firm, a construction project a means to erect a building and to contribute to the cash flow of the construction company. However, by explaining the existence of the project in terms of its outcomes, the real reasons for initiating the project might be overlooked, as well as the motives for the individuals of the project organzation to participate.

The rationalist view on management prevalent in the Western society does not recognize the existence of irrationality; behind the decision to initiate a project there should be a well thought–out strategy against which the outcome of the project can be evaluated. In fact, projects can be initiated for unclear reasons (Sahlin–Andersson, 1992), undertaken with the process *per se* rather than the outcomes in mind (Buchanan, 1991; Kanter, 1983), and pursued despite environmental changes making the project objectives obsolete or even undesired (Benghozi, 1990; Christensen & Kreiner, 1991; McCarthy, Schoorman & Cooper, 1993). By recognizing that rhetorics, decisions, and actions are neither necessarily sequential nor mutually coherent (Brunsson, 1989), the question "Why projects?" can be provided with numerous different answers.

Also neglected while viewing projects as tools are the various motives for the individuals in the project organization to participate (and, of course, for individuals outside the project not to participate). Traditionally, individuals are not supposed to have motives when entering the project organization, they are to be motivated by the project manager (cf Archibald, 1990). Consequently, projects are described as exciting, non–hierarcial, and stimulating experiences where the team spirit can flourish and creativeness be nourished. Such an idealistic view of the project as something very different from firms overlooks the fact that projects suffer from the same "dysfunctions" as do most organizations. Motivation–wise, people might see the projects as ways to make career–moves for themselves, to escape their usual work–setting or to improve job satisfaction. Action–wise, people might enjoy the *ésprit de corps* rather than producing, or spend time on socializing rather than focusing in the task (Keith, 1978).

The argument outlined above is to view projects as temporary organizations, not as tools. Projects should be researched in terms of culture, conceptions, relations to the environment, longitudial processes, etc., rather than just as goal–fulfilling sub–systems provided their *raison d'être* by a decisive and strategically concious super–system. Projects are aggregates of individuals, not a number of controllable elements in a Work Breakdown Structure!

Project Management is seen as a general theory. The common assumption behind the PMBOK and the subsequent ambitions to create a project management profession is that project management knowledge is applicable to all sorts of projects in all sorts of industries and environments (Engwall, 1992). A construction project might differ from organizational renewal projects in terms of outcomes and knowledge requirements, but the procedures for planning, controlling and leading the projects are supposed to be the same in both cases. Furthermore, Project Management has become a generic concept (Ibid.), an umbrella for all

sorts of different disciplines and theories applicable to project work. Project Management is thus seen as a scientific field in its own right, a field demarcated not by its theories and by its origins, but by the empirical phenomena of co–ordinated, time–limited undertakings among humans. The field is obviously tied together by conceptions on process rationality; differences in outcome are overlooked in favour of alleged similarities in planning and implementing the project process. But is there really the single, consistent, unambiguous empirical phenomena of "the project"?

Apart from simple listings of different application areas (cf Hunter & Stickney, 1983), the few existing typologies of projects point at the problems of viewing all projects as similar. The usual dimension along which projects are classified runs between well–defined, easily planned projects and ambiguous, unpredictable ones (cf Briner & Geddes, 1990; Briner, Geddes & Hastings, 1990; and the matrix models in Boos & Doujak, 1990; Pearson, 1991; Turner & Cochrane, 1993). The recommendations following these classifications are, however, mostly concerned with the use of planning and control procedures, and to a very limited extent grounded in empirical observations. As is the case of Project Management literature in general, the various groupings cited above suffer from the prevalent normative, theoretical approach. The different types of projects described in the classifications are thus ideal types forming typologies rather than empirically identifiable types forming taxonomies (Packendorff, 1993). In any case, the problem of the project as a multi–faceted phenomena, contingent on the nature of the task and environmental characteristics, has been recognized by Project Management literature. The impact on empirical research is yet to come.

The problem of general theories about organizations is that they must suffer the omittance of characteristics of deviant individual organizations or groups thereof, in order to attain universal applicability. Likewise, the anthropologically "thick" studies made on single cases are problematic, in that there are difficulties in distinguishing generally valid observations from case–specific ones. The formulation of *middle range theories* might be a path worth pursuing in order to achieve better descriptions of organizations:

"In contrast to general theories that purport to apply to all organizations, theories of the middle range attempt to predict and explain only a subset of all organizational phenomena. As such, each midrange theory makes different sets of assumptions about organizations, considers different parameters to be important, and leads to entirely different prescriptions for practice from other midrange theories.In fact, […] each midrange theory may be based on a unique set of images of what constitutes organizational behavior and on unique research strategies and tactics." (Pinder & Moore, 1979: 100)

Table 1. Common and alternative assumptions on project management

	Common assumption	**Alternative assumption**
Research metaphor of the project	A tool, a means to achieve higher–level ends	A temporary organization, a deliberately created aggregate of individuals
Project management theory	General theory for all kinds of projects, generic concept collecting under one umbrella different theories applicable on projects	Middle range theories on different sorts of projects, classified out of different selection criteria.
Aim of research on projects	Prescriptive, normative theory, grounded in ideal models of project planning and control. Research undertaken as survey–studies on large samples of projects.	Descriptive theory, grounded in empirical narrative studies on human interaction in projects. Research undertaken as comparative case–studies.

ALTERNATIVE ASSUMPTIONS FOR RESEARCH ON PROJECTS. From the common assumptions on projects and project management research discussed above, a number of alternative assumptions can be formulated (Table 1).

Where research is concerned, the argument following these assumptions can be described in

terms of an empirical proposal, and a theoretical one. The empirical proposal, "the temporary organization," is a consequence of the alternative metaphor outlined above. To be able to go beyond the prevalent notions of what a project really is, another "label" is needed. The theoretical proposal, "project organizing," is a consequence of the alternative view on Project Management Theory and the alternative aims and methods employed; adopting these assumption means studying organized action out of individuals' conceptions rather than structural features of projects (cf Weick, 1979). These two proposals are discussed in the two concluding sections as follows.

EMPIRICAL PROPOSAL: THE TEMPORARY ORGANIZATION

TEMPORARINESS IN ORGANIZATIONAL DURATION. Traditionally, there are three basic principles of relations constituting the foundation for meaningful human interaction; (1) Territoriality, i.e. the gathering of humans spatially concentrated, (2) Kinship, i.e. the gathering of humans with a low consanguineal distance, and (3) Common interests, i.e. the gathering of humans sharing interests of different sorts. While terroriality today has become an organization principle only to a limited extent applicable to the life of human beings, kinship and, especially, common interests, have stood out as guiding the evolution of society. (Slater, 1968) In certain types of organizations, all these principles are important (e.g. family businesses), but in most of them, common interest is the basis for interaction.

In temporary organizations—as is the case of permanent ones—common interest should be the most important organization principle. The difference is that the temporary organization is closer tied to the specific interest, and that the interest in question is transitory by nature. A temporary organization can therefore not be the habitual social arena that the permanent organization tends to be over time; to the individuals in temporary organizations, families and relatives become the arenas for exercising meaningful relations. This reasoning implies that that loyality will be harder to create and maintain in temporary organizations than in permanent (Reeser, 1969). The stress evoked by the continuous development and breaking of relations must not be underestimated (Butler, 1973; Slater, 1968). But then, what is a temporary organization?

Ever since Matthew B Miles published his brilliant article "On Temporary Systems" in 1964, the "temporary system" has been the prevailing concept in literature on temporary organizations (Bennis, 1968; Bryman *et al*, 1987b; Goodman, 1981; Goodman & Goodman, 1972; Goodman & Goodman, 1976; Keith, 1978, Lundin, 1992; Slater, 1968). The denomination "temporary organizations" is less usual (Gidlund, 1978; Hadjikhani, 1984; Morley & Silver, 1977; Packendorff, 1993). Other terms for the same phenomenon are "transitory organizations" (Palisi, 1970), "virtual corporations" (*Business Week*, 1993) and "temporary groups" (Ellis, 1979). There are also, of course, a lot of studies using the project concept, but in fact studying temporary organizations in the way proposed above (cf Benghozi, 1990; Borum & Christiansen, 1993; Ekstedt, Lundin & Wirdenius, 1992; Engwall, 1992; Hellgren & Stjernberg, 1987; Lundin & Wirdenius, 1989; Sahlin–Andersson, 1992; Sapolsky, 1972; Stinchcombe, 1985a).

In this line of argument, "temporary organizations" are the main concept, defined in the same way as projects usually are (a definition also found in many of the articles cited above):

A temporary organization:
- is a deliberately created structure aiming at evoking a unique process or completing a unique product;
- has a predetermined date or time–related conditional state when the organization is supposed to cease to exist;
- has clearly stated performance goals:
- is so complex in terms of roles and number of roles that it requires managerial skills and methods.

This definition excludes all time–limited gatherings of people where the last part of the definition is not applicable, i.e. simple systems without need for coordination efforts (compare the project definition in the beginning of the article, where the very same criterion is used to detach the project concept from tasks too trivial). It also excludes unintentionally created temporary systems such as mobs and panics (Miles, 1964). It does not, however, exclude temporary contacts between "permanent" systems; inter–organizational temporary organizations are likely to be as important research–wise as are intra–organizational.

The most important difference between the temporary organization and other organizations is that the former is deliberately time–limited from the start. It is, of course, possible that the temporary organization after being initiated decides to continue its existence beyond the termination date. The possibility of a discrepancy between intention and outcome can be illustrated as follows:

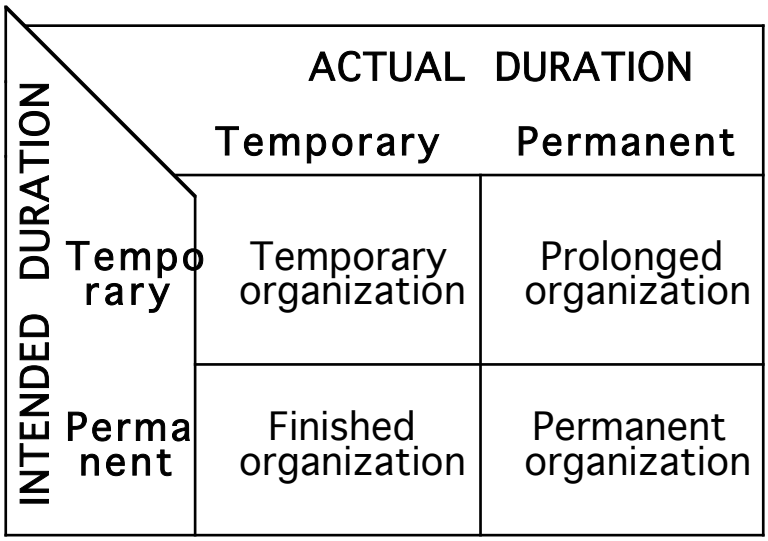

Fig. 1 Intention and outcome in organizational duration.

In a philosophical sense, no organizations can actually be said to be permanent; inifinite duration is a doubtful forecast of any human activity, and since there is no 'afterwards,' the alleged permanence can not be subject to evaluation. In practice, a permanent organization is a 'going concern,' neither expected nor intended to be terminated in the forseeable future. If such termination occurs, the organization is 'finished.' Consequently, the 'temporary' organization is a structure intended to cease to exist at a certain time in the future. If that intention is not realized and the existence continues after the final date, the organization thus becomes 'prolonged.'

Time limits are, of course, not the only property differing temporary organizations from most of their permanent counterparts. Goals are usually more specified, personnel to a higher degree recruited because of task–relevant competence, members often more isolated from the environment. Time limits may in themselves, however, create a sense of dedicated urgency and stimulating scarciness, but they are also capable of evoking stress and feelings of insufficiency. (Miles, 1964; Palisi, 1970; Slater, 1968). Furthermore, time in itself affects the way people define job satisfaction; for shorter periods doing the same work, task characteristics are more important for job satisfaction than the social context of the work (Katz, 1978; Katz, 1982b).

A TYPOLOGY OF TEMPORARY ORGANIZATIONS. As argued, projects can not be studied as single, unambiguous phenomena, since the variations between projects and types of projects endows all such research with the undetailed shallowness of generality. The same is true of temporary organizations. The theoretical categorization, i.e. typology, proposed here is constructed with two dimensions; (1) the degree to which the *individual* describes himself as depending on structures in the environment in performing his/her task in the temporary organization, and (2) the perceived degree of *structural formalization* characterizing the temporary system.

The individual parameter refers to the people in the organization and their relations to the environment. Temporary organizations exist in a world of supposedly permanent ones, and the work of individuals in temporary organizations can thus be assumed to be influenced by membership in surrounding permanent organizations. This goes for personal as well as professional relations; while members of a project in a matrix structure have obligations in their permanent work setting, members of "pure" project organizations have few dependencies upon the environment.

The structural parameter mirrors to what extent the temporary organization really is an organization, i.e. if the division of work and distribution of power are designed beforehand, or if they arose as a consequence of the action taking place. At one end of the scale is the rational view of the project as a tool; where the project manager plans a hierarchy in order to implement the task. At the other end is the completely unstructured organization, where no one really knows what to do befo-

rehand; a situation where the organization occurs spontaneously, the goals are negotiated in democratic processes and the iron law of oligarchy is given the privilege of distributing the power among the members.

Combining the structural and individual parameters results in the matrix depicted in Figure 2.

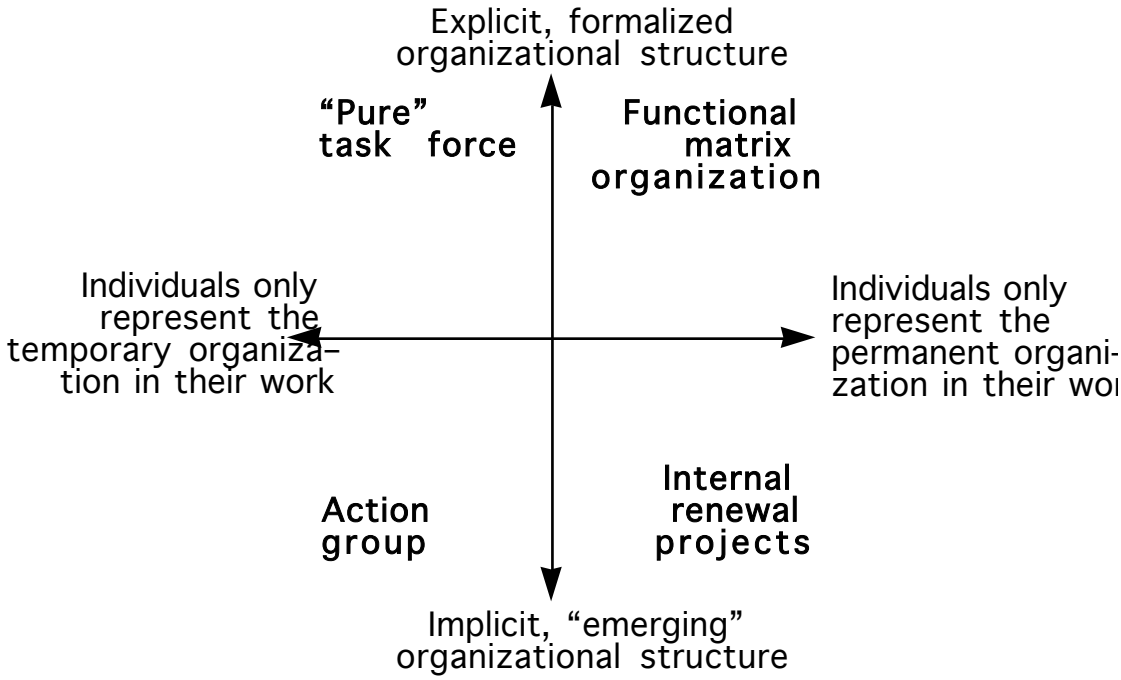

Fig. 2 Individual and structural dimensions of different types of temporary organizations. Source: Packendorff, 1993: 78.

The "pure" task force is an explicitly structured, goal–fulfilling system, composed of a number of individuals selected because of task–relevant competence. Since the individuals' competence is the only selection criterion, no relation to surrounding permanent organizations is supposed to influence upon their behavior in the project. Examples of "pure" task forces are military operations, mediating assignments or the production/delivery of unique services.

The functional matrix organization (term from Larson & Gobeli, 1987) is also an explicitly structured system, given a task from the beginning. It differs, however, from the "pure" task force in that it exists completely within a permanent structure; the members hold positions outside the project, and they therefore have to balance between the two assignments. In this kind of temporary organization, task–relevant competence might not always be the main selection criterion—having representatives from all parts of the permanent organization can be as important in order to complete the task. Between the "pure" task force and the functional matrix is the interorganizational project, i.e. a "pure" project organization where individuals are representatives of the permanent organizations constituting the project.

The internal renewal project is similar to the functional matrix in that it is undertaken completely within a permanent organization (cf Buchanan, 1991). Representativity of members may also be more important than task–relevant competence; to gain acceptance for organizational renewal is usually a matter of legitimacy. There are, however, important differences between the functional matrix and the internal renewal project; the latter is process– rather than product–oriented, and the project structure is not as sharply defined in terms of members. The ones advocating and carrying through the internal renewal project are in fact those who find the renewal worthwhile, an opinion not necessarily grounded in any formal position in either the permanent organization or the renewal effort.

The action group, finally, is like the "pure" task force distinguishable *vis–à–vis* the environment. It is also guided by a clear and unambiguous objective, e.g. obstructing the construction of a

highway or changing a certain legislation through influencing members of the parliament (Gidlund, 1978). After attaining its goal, the organization is dissolved. The limited scope of the "task" implies that the members rarely have to adjust to positions in permanent organizations. Furthermore, it is the will to contribute to the fulfillment of the objective (rather than task–relevant competence or representativity) that determines the effectiveness of the individual (compare the internal renewal project). This ambition might be completed by *ésprit de corps* and other relations keeping the group closely connected during the existence of the action group—like in any other organization. As in the internal renewal project, the structure is not decided upon beforehand, and can thus be said to arise as the organization proceeds.

THEORETICAL PROPOSAL: PROJECT ORGANIZING

ORGANIZATION vs. ORGANIZING. The two concepts focused upon in this section—organization and organizing—are linked to the two project metaphors "tool" and "temporary organization." 'Organization' is then the generic concept for the set of metaphors inherent in the General Systems Theory; i.e. the organization as an open system, guided by objectives, managed through work division and –specialization, and distinguishable *vis–à–vis* the environment. This view is prevalent not only in research on project planning and control, but also in a lot of the considerable organizational studies on projects. As a concept, 'organization' is related to 'tool' as well as 'rationalism;' the basic idea is to design, to optimize, and to be prepared for all eventualities beforehand.

'Organizing' is, on the other hand, the deliberate social interaction occuring between humans working together to accomplish a certain task. Or, as expressed by Karl E Weick:

"…a *consensually validated grammar for reducing equivocality by means of sensible interlocked behaviors*. To organize is to assemble ongoing interdependent into sensible sequences that generate sensible outcomes." (Weick, 1979: 3; italics from the original)

In contrast to the 'organization' focus on structure, 'organizing' views the actions of individuals (which can be put together to form processes) as the basic elements:

"The relationship between the acting individual and the structure can be "translated" to a relationship between process and structure, since the process concept represents the actions of a number of individuals. Processes are in that respect the concept against which structure can be contrasted when organized human interaction, rather than individuals in general, is focused. Organized human interaction, like the acting individual, can not therefore be ascribed any "mechanical" motives […], i.e. the organizing can not be understood in terms of the structure "causing" a certain organizing pattern." (Söderholm, 1991: 45; translation: J.P.)

Projects as time–limited courses of events can, irrespective of whether the 'organization' or the 'organizing' perspective is applied (cf Sahlin–Andersson, 1992), be divided into three ideal stages: Development, Implementation and Termination (PMI Standards Committee, 1987; compare the descriptions in Miles, 1964, or Pinto & Prescott, 1990). In the project 'organization' model, these stages are sequential by order; implementation of a project is always supposed to be preceeded by development and suceeded by termination. When viewing projects as temporary 'organizing,' the sequential order is less discernible; the project is incessantly enacted by individuals continuously learning by experience and expecting further learning. The difference between 'projects as organization' and 'projects as organizing' can be depicted as in Figure 3.

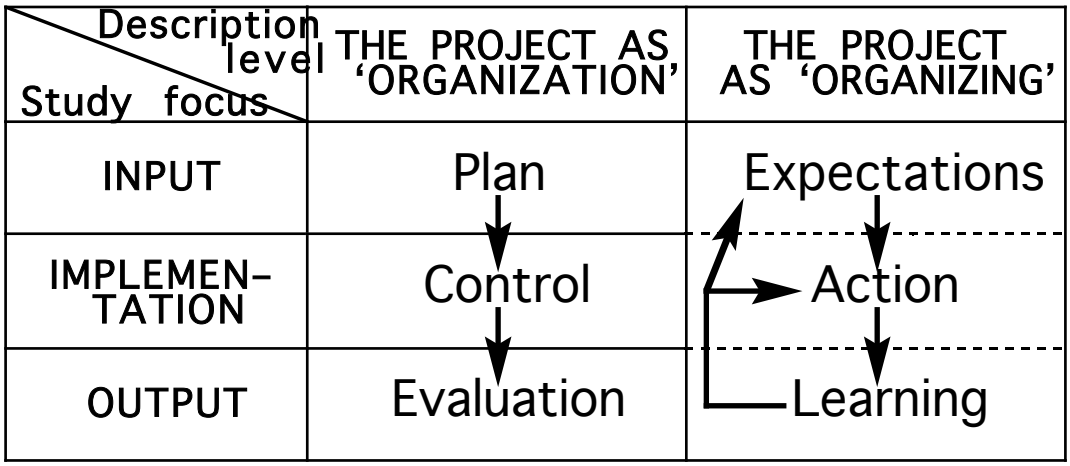

Fig. 3. Study foci of project management research at different description levels. Source: Packendorff, 1993: 105 (revised).

The stage where the project is conceptualized is referred to as "input." 'Organization'–wise, the project organization is provided with a plan and an organization structure. Based on the project task specifications, the work to be done is structured into controllable parts, and a budget is decided upon in order to facilitate continuous follow–up. 'Organizing'–wise, expectations concerning the nature of the project are formed, based on previous assignments of similar kind or on the rhetorics of the project to come.

Implementation is, in short, to control and lead the organization according to plans, and to handle all unforseen eventualities emerging during the project. Organizing takes place, i.e. the removal of equivocalities in between the individuals concerning conceptions of the nature of the projects, is followed by the enactment of these very conceptions. During the life of the project, this expectations–action–learning loop is repeated numerous times; the project can thus be seen as a cyclical design process (cf Stolterman, 1991)

Finally, the project is terminated, (hopefully) evoking the output desired in terms of delivery time, resource expenditure and product quality. At the same time, the organizing processes is interrupted as the project organization dissolves. Learning has occurred at the individual level as well as at the organizational one (Packendorff, 1993); the question is how to preserve the organizational learning taking place during the life–time of the project. In the following two sections, the existing research on 'project organization' and 'project organizing' will be described in order to define the areas of future research.

PROJECT ORGANIZATION. As shown above, most of the literature on project management deals with planning and control. The basic reasoning is that the stipulated task is possible to plan beforehand, and that it can be broken down into sub–tasks. The sub–tasks are supposed to be controllable, and can be assigned to the most suitable individuals. Through the use of formal lines of command, the plan can be realized as intended. The main restrictions are always time, cost and the desired output (Lock, 1992). Following the outline in Figure 2, 'project organization' can be divided into 'planning,' 'control,' and evaluation.

Theories on project planning. Except for the planning models emerging out of Operations Research during the 1960's, the field of project planning has been preoccupied with concepts such as life cycle–planning, risk analysis and project valuation. The way of implementing the models—i.e. how to make them useful to project managers—has also been a subject of interest. By implementing the models as computer software, they are supposed to be more user–friendly, thus changing the role of the project manager from practitioner to administrator (Thamhain, 1987).

The research on project planning is nowadays a highly advanced discipline, and further efforts will therefore have a limited impact to high treshold costs. Furthermore, it can be questioned if the results of this research is really put into practice; it appears that only the most basic models are *de facto* used (Liberatore & Titus, 1983; Link & Zmud, 1986), and that they are always not used as intended (Nathan, 1991; Sapolsky, 1972).

Recently, a new line of research has evolved in the borderline between project planning and project control, dealing with implementation of project plans; the plan is not evaluated from its logical exquisiteness, but from its part in project

success. This research has been concerned with different implementation environments (a kind of contingency theory of project planning procedures [Nutt, 1983]), evaluation of the planning work *per se* (Woodward, 1982), and with how the importance of planning procedures is altered over the life–cycle of the project (Pinto & Prescott, 1990).

Theories on project control. The theoretical field of project control can roughly be divided into two areas: Project Organization and Follow–up Plans. The former area contains research on the problems of delimiting the project organization *vis–à–vis* the surrounding permanent organization, the latter research and advice on the follow–up of plans and budgets, and how such follow–up can be used by the project manager.

The most usual subject of inquiry concerning the delimitation of project organizations from their environment is the matrix structure (cf overviews in Ford & Randolph, 1992 and Knight, 1976). Since organizations were for a long time functionally divided, the matrix structure became the natural way to gather competence from different parts of the organization in order to undertake important renewal efforts. The problem permeating the research on matrix organizations is conflict; conflict between managers on resources and individuals, on influence and status. The common notion is that conflict is dysfunctional (Archibald, 1992; Thamhain & Wilemon, 1975; Wilemon & Baker, 1983), even though some see conflict in small doses as catalytic to innovation and renewal (Barker, Tjosvold & Andrews, 1988; Butler, 1973; Dinsmore, 1984; Hill, 1975, Hill, 1983; Stinchcombe, 1985b). Most organization theorists are of the opinion that the matrix structure is being abandoned as the functional organization is replaced by divisional ones; further research in this area is thus not to recommend.

Concerning the continuous control and follow–up of projects, the conventional literature is concentrated around methods of comparing plans and budgets to outcomes. Plans and budgets are often in a need of updating during the initial phases of a project; there might for example be a need for a number of subsequent estimations of costs as new information "emerges." Great importance is attached to the creation of functioning routines for cost control, routines demanding a thorough organization structure and information systems charachterized by high frequency and detailed examination. (Ritz, 1990)

Theories on project evaluation. Concerning project evaluation, the normative theories otherwise so abundant are conspicuous by their absence. It appears that successful projects are in no need of evaluation; meeting the objectives in terms of cost, time and performance is the same as putting the project aside without asking *why* it was such a success. "Evaluation" is thus operationalized in terms of "degree of goal fulfillment," a measure that has been used in a number of quantitative inquires aiming at reasons for good and bad performance.

When projects fail, on the other hand, project evaluation seems to be a far more frequent occurrence; since the key to the failure is assumed to be found in literature, finding the reasons is perceived as an easy task. A number of books on project failure have been published, books that in general can be said to provide thorough case descriptions but superficial analyses. Project failure is usually not ascribed the project managers or the individuals actually implementing the project; it is the irrationality and the indetermination of the initiators of projects that cause fiascoes (Hall, 1980; Janis, 1972; Kharbanda & Stallworthy, 1983; Morris & Hough, 1987; Sapolsky, 1972; Wilensky, 1967).

PROJECT ORGANIZING. References regarding research on Project Organizing are rare in literature. There have been very few studies on what actually happens in projects and how the individuals inside and outside the projects conceive their organizational reality.

Theories on expectations on projects. Projects, like any other human endeavour, are associated with conceptions of the nature of their implementation, conceptions concerning the task to be solved or the very essence of the noun "project." Conceptions are usually based on previous experiences of a similar kind, and projects can thus be said to be *institutions*, incessantly reproduced through actions based on these experiences. These conceptions are usually not specific for one single organization. On the contrary, they may be common for a large number of organizations and people. It should be noted, however, that conceptions/expectations do not provide a full explanation of actions in organizations; without commitment and motivation, expectations can not "evoke" action (Brunsson, 1985).

A field of theory gaining in popularity during the 1980's is the Neo–Institutional Organization Theory, which attempts to explain organizational structure and action by the systems of norms, values and conceptions surrounding the individual organizations (cf Meyer & Rowan, 1977). Except for some minor efforts (cf Lundin, 1993), institutional theory has not been used in empirical studies on project organizations. Since the noun "project" is common in most organizations, there

are also a lot of institutionalized conceptions of what a "project" really is, conceptions that influence what happens in project organizations. Consequently, the ambitions of PMI and others to standardize the knowledge and education of project managers is nothing but a crusade aiming at the creation of institutions through standardizing the conceptions of projects and project management.

Theories on action in projects. The studies on action in projects (i.e. human interaction within the project organization leading to the outcome of the project) can easily be divided into longitudinal case–studies often employing action research (cf Benghozi, 1990; Ekstedt, Lundin & Wirdenius, 1992; Goodman & Goodman, 1972, Goodman & Goodman, 1976; Lundin & Wirdenius, 1989; Sahlin–Andersson, 1992) and case–studies made after the completion of the project (Borum & Christiansen, 1993; Chadha, 1981; Engwall, 1992; Goodman, 1981; Hadjikhani, 1984; Hellgren & Stjernberg, 1987; Katz, 1982a; Morris & Hough, 1987; Sapolsky, 1972; Stinchcombe, 1985a).

There are several possible perspectives from which research on action in projects can be done. One perspective may be the project managers', focusing on project leadership (e.g. a charismatic idea–selling leadership style as a contrast to the rational plan–implementing one), another the decision processes occurring. Yet another perspective may be social interactionism, attempting at understanding action as based in individual conceptions and interpretations rather than as behavior caused by external factors.

Conceptions of time may also be a frutiful line of research; a time limit known beforehand can be interpreted in various ways by the individual project members. Some may view the time available as unreasonably short, thus speeding up the process, while others find the time horizon as remote, thus taking a laid–back attitude *vis–à–vis* the project. In for example internal renewal projects, some may do anything to put the rhetorics of the project into practice to become a part of the front line of the organization, while others look upon the time limit as the end of the renewal effort, thus inactively awaiting what will come after. Time limits and projects may also be described as social constructions; by putting "brackets" around a certain sequence of action in the past, a slice of order can be cut out of a complex stream of events.

Theories on learning in projects. Theories on learning in projects—i.e. theories on how project work causes learning at the organizational as well as individual level, and how this learning can be made useful to the organization in subsequent projects—are non–existant today.

Learning in projects can not only be studied within projects (i.e. what Bateson, 1972, refers to as "proto–learning"), but also between projects; the learning in one project influence upon the learning in the next one, even though the projects and the respective roles of the individuals in them are different ("deutero–learning"). The nature of learning in projects is probably also affected by the degree of institutionalization; in the cases where there are strong conceptions about what project work is all about, the possibility of renewal seems to be diminutive (cf Ekstedt, Lundin & Wirdenius, 1992).

From a more instrumental perspective, the project can be conceived of as a way to enhance learning in organizations; through removing people from their usual routines and setting them an unusual task to be solved in interaction with unknown individuals, the permanent organization structure can be opened up to renewal and change. Research on such endeavours is likely to be of significance in the future.

TEMPORARY ORGANIZING: A NEW RESEARCH AGENDA

As concluded above, the project is not an empirical phenomenon in itself; the conceptions of what the noun "project" really means differ between individuals, organizations and industries. If someone claims to belong to a project, then she does belong to a project. The project, however, does not exist until someone makes such a statement, and enacts this reality. It is the collective enactment of shared conceptions of reality that is here referred to as "organizing." The question of temporariness of the common interest or issue (i.e. the conception that the time available and/or necessary for completion/satisfaction of the interest can be of limited extension) adds the temporal dimension argued for in this paper. Conclusions on further theoretical elaborations on projects can be described as follows:

(1) Projects ought to be researched. Normative or descriptive, literature on project management should be explicitly based in empirical observations of projects. Constructing theoretical models is an activity of limited value as long as it is not combined with studying the reality of people involved in project work.

(2) Projects ought to be researched for what they really are; temporary organizations. A firm does not exist only because there is an organization plan and systems for information and accounting.

Likewise, a project does not exist until it is actually undertaken by human beings. Moreover, the prevalent proclivity to focus upon similarities between projects, thus neglecting the differences, should be replaced by a research agenda calling attention to both similarities and differences (i.e. a taxonomic approach aiming at theories of the middle range).

(3) Projects ought to be researched using a wide range of theories. The Project Management Body of Knowledge is an ambitious attempt at standardizing the knowledge and profession of Project Management. The assumption that there is a body of knowledge exclusively applicable to Project Management can, however, be questioned. By delimiting the conceptions of what a project is, a distinct arena for academic discourse is indeed created, but at the expense of innovation and creativity in research on projects. The choice of theories should be guided by research questions, not by general opinion on what "project management theory" is.

(4) Projects ought to be researched as social constructions. Like society, the organizational reality of man can be viewed as a social construction of reality, institutionalized and reproduced by the human mind (Berger & Luckmann, 1967). Projects, like permanent organizational surroundings, are institutions created out of the expectations, reproductive actions and learning taking place among the human beings constituting them. Consequently, the methods and theories in Project Management research needs to be adjusted to the fact that it is the individual conceptions of the reality of project work that is studied rather than universal truths and mechanisms of the unambiguous phenomena of "projects."

(5) Projects ought to be researched as action systems. Unlike permanent structures, projects are devoted to action (Lundin & Söderholm, 1994). The politics and hierarchies of permanent organizations can be left behind when entering a project, thus unleashing the creative power of individuals (Miles, 1964). Studying projects as action systems means spending less energy on studying what is meant to happen, and more on what is actually happening. Furthermore, it is the enactment by the individuals rather than the behavior of individuals that is of interest; action can not be studied without also investigating the expectations forming the action base and the learning ocurring as a result of the action taking place. The narration of the project member is thus the main source of data on "project reality" unless action research of the "going native" kind is employed.

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