

*In Sundgren, B., Mårtensson, P., Mähring, M. and Nilsson, K. (Eds.) (2003). Exploring Patterns in Information Management: Concepts and Perspectives for Understanding IT-Related Change, Stockholm School of Economics, Stockholm*

# **PATTERNS OF CHANGE AND ACTION: A SOCIO-PRAGMATIC PERSPECTIVE ON ORGANISATIONAL CHANGE**

Göran Goldkuhl  
Department of Computer and Information Science  
Linköping University  
and  
Jönköping International Business School

## **1 INTRODUCTION: ACTION AND CHANGE**

Action means a change in the world. The notion of action implies that an actor brings about some change. The world will be changed as a result of a successful action. Actions performed in organisations imply changes, but not all such actions can be called organisational change. This essay is an investigation into this seeming paradox:

- All action implies change<sup>1</sup>
- Not all organisational action implies organisational change

My purpose is to investigate organisational change through an understanding of organisational actions. By looking at organisational actions, patterns of change and non-change will emerge. Learning about patterns of organisational change is a way of improving our capability to deal with such changes. This is a belief that I share with Mats Lundeberg. “You can improve your ability to handle change processes in business by learning to recognize patterns” (Lundeberg, 1993 p x).

Above I described action as change in the world. When we act we *intervene* in the world in order to change it in some way. Action means *making a difference*. For example when a firm manufactures goods, the employees are acting towards some material in order to create valuable products for customers. This is an interventionist view of action. This view must be supplemented in several ways. We do not only act in order to change something out there; in the external world. Very often we act in order to change ourselves, for example to improve our knowledge. We investigate the world directly or through mediating sources in order to learn more about the world. In these cases we intentionally try to change ourselves; to improve our knowledge. Such action I distinguish from interventionist action. I call such action *interpretive* and such action will be performed with an inquiring purpose. These two types of action (interventionist and interpretive) both imply change. From the actor perspective interventionist action is intended to change his external world.

---

<sup>1</sup> The case of omissions will be commented below.

Changes in the external world can be material changes or semiotic changes. In the first case you do something with a clear material purpose; e.g. chopping wood. You transform the wood into firewood. In the second case you present signs, like when asking someone to chop firewood. It would be possible to misinterpret the first type of action to be a non-social action, while the other one is a social action. It is clear that the second type of action – presenting signs – is a social action. It is aiming at a social influence. The first type of action is primarily aiming at a material change. Such material actions can however also be seen as social actions. If the chopping is a response to a request for chopping (i.e. there are social grounds for that action), and if the purpose thereby is to deliver some firewood to another person (i.e. there are social purposes), such action should be seen as a social action<sup>1</sup>. Interventionist action can thus be a material action or a communicative action.

An interventionist action is directed towards the external world and aims at making external changes. It is however important to acknowledge that such action is nearly impossible to perform successfully without simultaneously interpreting the external world. In order to make a proper intervention, there is a need for a prior apprehension of the situation (Mead, 1938). The direct intervention is usually performed together with a continual monitoring and awareness of the situation. The actor will in this way learn about his own action through interpreting preconditions, performance and effects. Giddens (1984) speaks of this learning aspect as the reflexivity of action. The actions have repercussions back on the actor.

Interpretation is thus an integral part of interventionist action. It serves intervention. It is however important to recognise that interpretive actions can be performed on their own, without any parallel intervention. It is also important to see that in some cases intervention is subordinate to interpretation and inquiry. When you make an experiment you make some external changes in order to investigate, observe and learn about the world. Intervention is in this case a means to observational ends. Intervention serves interpretation.

An actor can purposefully reflect upon his own knowledge. This can be done in order to articulate tacit knowledge, draw conclusions, construct categories, arrive at new insights, and shape new ideas or other creative and knowledge developing acts. This kind of internal transformation is conceived as action when it is made with some deliberation and endeavour. I call it *reflective action*.

One more supplement can be made to the action notion. There is human behaviour, which is not oriented towards change, but we still call it action. In action theory, the *human omission to act* is also considered an action; omission acts (von Wright, 1963). Not all human "non-behaviour" is viewed as omission action. We call something an omission act only when the actor had an apprehended possibility to act and he avoided making such an interventionist action.

These four types of action<sup>2</sup> can be seen as pure types (ideal types). Many performed actions in real life can, as indicated above, be combinations of these different types. The four types of action are described in a table (figure 1) with the purpose of characterizing and comparing them.

---

<sup>1</sup> This follows the analysis of Weber's (1978) notion of social action made in Goldkuhl (2001).

<sup>2</sup> This socio-pragmatic framework has been more thoroughly elaborated in other publications; cf e.g. Goldkuhl (2001; 2002), Goldkuhl & Röstlinger (2002) and Goldkuhl & Ågerfalk (2002).

<i>Characteristics</i>	<b>Direction</b>	<b>Action preconditions</b>	<b>Primary change (intentional)</b>	<b>Possible side effects</b>
<i>Type of action</i>				
<b>Interventionist action</b>	Outward (towards external world)	External world to influence	External influence (material or social)	Reflexive feedback (internal change)
<b>Interpretive action</b>	Outward (towards external world)	External world to observe	Internal change (improved knowledge)	External change of an inquiry can occur
<b>Reflective action</b>	Inward (towards knowing)	Knowledge to be reflected upon	Internal change (improved knowledge)	
<b>Omission action</b>	None	External world to be left unaffected	No intentional change	Changes can occur without influence of the actor

*Figure 1 An action classification*

In this essay I focus mainly on interventionist action but partly also on interpretive and reflective action as preparatory actions for interventionist action. My primary interest is action aiming at change.

## **2 ORGANISATIONAL ACTION**

### **Organisational action as change in the world**

I stated above that interventionist action in an organisation is oriented towards change of the world through influencing material or communication. Only part of such action means organisational change. We change something in the world but this does not mean that the phenomenon we call organisation is changed.

Many ordinary business actions performed in an organisation are directed towards creating value for the customers<sup>1</sup>. A main organisational purpose is to make a difference to its customers. This socio-pragmatic view implies also a view on organisations as actors. An organisation is a unity and with a capability to act. It can however not act by itself. Human actors perform actions in the name of the organisation. Humans act as *representatives* of the organisation (Ahrne, 1994; Taylor & Van Emery, 2000; Goldkuhl & Braff, 2001).

Let us look closer at different organisational actions directed towards the customers. There are actions aimed at catching the customer's attention of the organisation's capability and products. There are actions of offer, using sales proposals to influence the customer to buy products. If the customers order products, there may be confirming actions with commitments

<sup>1</sup> I will use commercial organisations as the prototype case when discussing organisational change and action. I think that much of what I say may also be relevant for non-commercial settings. A consequence of using commercial organisations as prototypes is that I use the word "business" instead of more general terms, like e.g. workpractices. Confer Goldkuhl & Röstlinger (2002) for an analysis of the workpractice concept.

to deliver a product to the customer. Such commitments need to be fulfilled. The demanded products are produced and delivered. The customer will be exhorted to pay when presented an invoice. This description of business action follows a generic business logic; confer Goldkuhl (1998).

All these actions aim at making changes; making difference in the world. The organisation tries to make changes in customer's attention, and tries to influence the customer to buy products. When making a delivery promise the relationship to the customer is changed; the organisation commits itself to future actions towards the customer. The delivery promise is expressed so the customer can count on product delivery. When producing and delivering products (goods or services) changes are made in the external world. Organisational action is about change; influencing and changing the world.

Making business means to a great extent coordinating actions between supplier and customer as implied above. A supplier also needs to coordinate the different actions within the organisation itself. Different persons from different functions in the firm must cooperate and coordinate their different actions in order to create value to the customer. Such coordination means communicative action with the purpose of making the different actions of different persons organisationally congruent.

### **Institutions governing organisational action**

There is a recurrent performance of the kind of business actions described above. To be competitive on a market there is a need both to use scarce resources and to adapt to customer needs and demands. It is not possible or economically proper to invent new ways of performing business on every occasion. *There is a great power of repetition and routine.* The infrastructure of the organisation is used over and over again. The actors can perform the same types of actions over and over again. Many actions will be of routine character. There will be institutionalised ways of performing business. Of course there will be a natural variation of actions within such a social institution. Different problematic situations arise, which must be treated in ways deviating from the normal way. Different customer preferences give demands for modified action and results.

Organisational institution explains routine and stability in an ever-changing world. If there was no organisational institution there would not be any recurrent typical organisational actions. I turn to the concept of institution, as a force of preserving stability and order in the organisation, in my quest to understand organisational change. An institution describes and prescribes the way things are done. Institutions describe *what* to do and *how* to do it and sometimes also *why* to do it (Berger & Luckmann, 1967; Giddens, 1984).

I do not claim that there are detailed rules for all kinds of organisational actions. Many actions are only governed by vague knowledge and situational characteristics have a strong impact. There are also differences between organisations. Some organisations have operations of more routine character, while other have high fluctuations in customer demands and are very knowledge intensive. In such organisations the institutions often tend to be weaker and the power of each individual is greater.

The notion of social institution is well described by Berger & Luckmann (1967). They describe how institutions arise through processes of *habitualisation* and *typification*. Habits are abstracted and typified to action patterns, which later on function as rules for conduct.

When followed in actions, institutions are continuously expressed, and thus reinforced. Institutions reside in inter-subjective knowledge about the social and material world and how to act within it. Institutions have therefore a capacity to preserve social order and stability. An institution is however dependent on the actors' recognition of it. If the actors change their collective conceptions, institutions will change accordingly. If actors change their ways of conduct, institutions will change.

Several scholars use the notion of institution in order to describe and explain organisational action; confer e.g. March & Olsen (1989), Powell & DiMaggio (1991) and Scott (1995). *Organisational institutions are described as collective and regulative knowledge governing and framing organisational action.* In doing this there is a stronger bond to history than to future (which is acknowledged by March & Olsen, 1989). The inter-subjective knowledge basis is evident for institutions. Institutions exist and proliferate through inter-subjective knowledge. But is this the whole picture? In a socio-pragmatic spirit I would like to adopt a more comprehensive view on organisational institutions. In order to do this I first turn to the etymological origin of the word "institution". It originates<sup>1</sup> from the Latin verb "instituere" (composed of in- + statuere) with the meaning of "set up" and "establish". An institution is thus something, which is *set up* with the purpose to give some *stability*. The word "establish" (having a similar meaning as institute) has its origin in the Latin word "stabilis" meaning stable. A socio-pragmatic (re-)interpretation of the institution concept gives the following meaning: *An institution is the result of institutionalising acts and it has the function of preserving stability in future actions*; confer also Giddens (1984) about the duality of his prominent concept "structure".

### **Carriers of organisational institutions**

Scott (1995) uses the notion of *carrier* when describing institutions. This notion seems to be a way to escape a too limited cognitive view on institutions<sup>2</sup>. There may be different carriers of an institution<sup>3</sup>. *Inter-subjective knowledge* is one carrier of an institution, and this is an indispensable carrier. Without any knowledge (explicit or tacit) there would not be any actions in compliance with the rules of the institution. There may, however, be other carriers of organisational institutions. Institutional knowledge may be *expressed linguistically* and recorded in documents. Such documents will have functions of instructing and reminding people in the organisation about the institution. When employees are uncertain about their expected conduct they can inspect manuals and other documents in order to obtain guidance.

Parts of institutions may also be manifested in *material artefacts*. Using artefacts (like production technology, information technology) is not only done with reference to economic considerations of replacing people with equipment. To implement artefacts is also a way of enforcing designed procedures on the organisation. A computer-based information system (IS) is a good example of an externalised institution. Rules are programmed into the artefact. The rules are followed when the artefact is executed and used. This is not only the case with the automatic parts of the IS. Also interactive<sup>4</sup> parts of the IS, when the user and the IS

---

<sup>1</sup> Confer e.g. Merriam Webster's Collegiate® Dictionary; <http://www.m-w.com>.

<sup>2</sup> I have borrowed the concept of institutional carrier from Scott (1995). I have defined other carriers than Scott.

<sup>3</sup> In Goldkuhl (2002) I have described the concept of multi-existing phenomena; i.e. social phenomena which at the same exist in different realms of the world; for example in cognitive, semiotic and material realms. An organisational institution is such a typical multi-existing phenomenon.

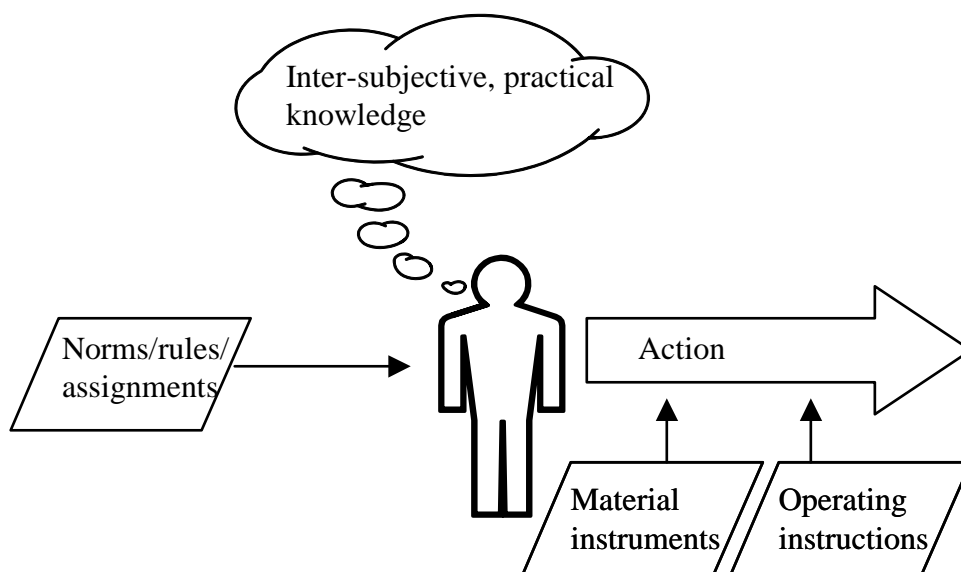
<sup>4</sup> Confer Goldkuhl & Ågerfalk (2002) about automatic vs interactive use-situations of information systems. In line with Latour (1992) I give artefacts a prominent place on the organisational scene.

interactively perform some actions, will have an enforcing power on the organisation to comply with the institution. Artefacts will usually bring restrictions to the actors' way of performing actions. The artefact, as an instrument, will not only support human actions, but also direct and constrain the actions (Engeström et al, 1999). Artefacts will have an institutional power on the organisation.

There may be conflicts between the different institutional carriers, i.e. between the knowledge of different actors and different recorded descriptions and different artefacts (Goldkuhl & Braf, 2001). Such conflicts and incongruencies may be a source for organisational change (ibid).

I define an organisational institution (as part of an organisation) in the following way: *An organisational institution comprises prescribed ways of interpreting, conceptualising and conducting organisational work and thus making such interpretation and conduct similar and congruent over time and between actors. An institution is manifested in different carriers; i.e. in inter-subjective knowledge of organisational actors, in documented descriptions, instructions and assignments, and in material artefacts with capabilities of performing or supporting actions.*

Figure 2 is an illustration of different carriers of an organisational institution and that these institutional carriers affect organisational action. It is important to recognise that there is a social<sup>1</sup> basis for all carriers; for the cognitive, semiotic and material carriers.



*Figure 2 Different carriers of an organisational institution affecting organisational action*

An organisational institution (as inter-subjective knowledge) involves different types knowledge: For example categories, conceptions, values, preferences, role definitions, action rules, standards for action results. Institutional knowledge resides in both, what Giddens

<sup>1</sup> The social character has not been made explicit in figure 2. This illustration should however be interpreted as an institutionally focused model of organisational action derived from the more exhaustive model of social action found in Goldkuhl & Röstlinger (2002 p 18).

(1984) calls, practical and discursive consciousnesses. *An institution involves a meaning-universe with both coherence and tension.*

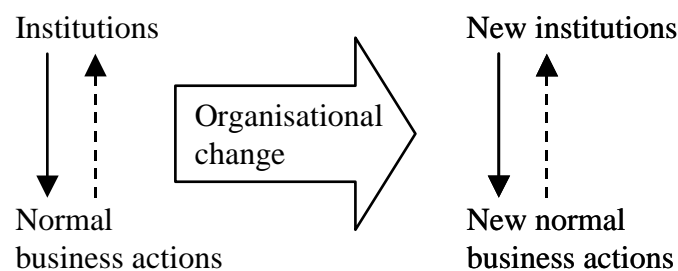
### 3 ORGANISATIONAL CHANGE ACTIONS

#### Organisation change actions vs normal business actions

Organisational life is not possible without routine, repetition and institution. But on the other hand organisations cannot survive if such institutionalised patterns do not change in line with changes in preferences and demands from the environment.

Actions that are performed with a consequence of changing some institution of the organisation I will consider as an *organisational change action*. Most actions of an organisation are not directed towards a change of institutions. They are performed according to institutions and with the purpose of making differences in the business directed towards its customers. I call such actions normal business (NB) actions. In my conceptual determination of organisational change (OC) action above, I did not write "actions performed with the *intention* to produce changes in some institution". I wrote "actions that are performed with a *consequence* of changing some institution". Of course many OC actions are performed with the primary purpose of changing the organisation (its institutions).

Some actions in the organisation are thus intentionally oriented towards changing other actions (the NB actions). The way to do this is to change the institutions governing the NB actions (figure 3). The domain of OC action is other actions. The purpose is to change such actions. OC actions aim at modifying, obliterating or creating new actions. OC action is about *composing other actions*. Organisational change is action oriented towards other action, thus *action of second order*. It can be called meta-action.



*Figure 3 Organisational change*

#### Project-based organisational change

Organisational change is often performed on a project basis. One creates a separate arena for discussing and designing alternative ways of NB action. This is a common approach to organisational change (figure 4). In a project there is a clear distance to ordinary business. The project members are gathered to reflect on the ways of performing business. A project arena hinders them to be drowned in ordinary work and this arena may afford a mental possibility to reflect on the ordinary work. Through the project work (the OC actions) new ways for NB actions are suggested. The quality of such redefinition of NB work is dependent on

- knowledge of current praxis
- innovativeness in design
- competence of performing organisational change

Parts of the knowledge of the current situation can be tacit; i.e. be part of “the practical consciousness” (Giddens, 1984). There may be a need to be articulate and reconstruct such tacit knowledge; i.e. to make it part of discursive consciousness.

If new ways of working are decided upon, then the NB actions are to be modified according to these proposals. This is the problem of implementation of change, which is well known. The NB actors can be partly others or totally others than those who designed the new principles for action. There must be an organisational authority to claim the new way of working and the NB actors must comply with this if new ways of action are to be established.

If this is the case the NB actors will try out new ways of action. Different proposals for NB action can have different levels of detail concerning prescriptions. Sometimes such proposals leave (intentionally or by accident) much room for action design made by the actors themselves.

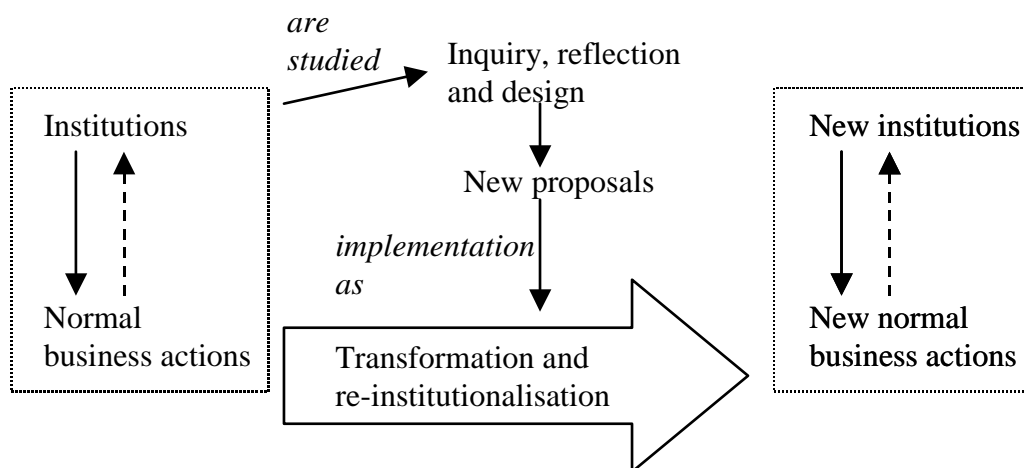


Figure 4 Project-based organisational change

### Change of organisational institutions

If the actors are performing these new and different ways of action, the institutions will gradually change. The new ways of action will be incorporated in the inter-subjective knowledge of the organisation. This can be seen as a process of *re-institutionalisation*. If the proposed ways are rejected there will be no new institution and the organisational change will fail. An institution can be enforced on the organisation through the use of artefacts. Material arrangements may compel certain behaviour. Artefacts and written assignments and instructions will in many cases have a power to create a modified conduct (cf Latour, 1992) and new inter-subjective knowledge may arise which is a foundation for institutions to survive.

An adaptation during change implementation and establishment will probably make the institutionalised way of working (at least partly) different from the ways proposed by the

project. There are difficulties to design all actions and action aspects on the sketch-board and this is often not even desirable. People want degrees of freedom for their action and often dislike too detailed prescriptions.

A change project must not have a strict separation and sequencing of, on the one hand, reflection and design, and on the other, trying out and implementing new ways of action. Experimentation and test (like prototyping) can be made in alternation and close cooperation with a more abstract design. There are different change strategies for project work and there must not be a strict linear way (design → implementation) as described above. When experimenting with new ways the process of re-institutionalisation will start at the same time.

### **Evolutionary organisational change**

Not all organisational changes are performed in this intentional and designing way using a separate project arena. All organisations change gradually without explicit change projects. Not all issues are important enough to emanate in a project.

Institutions do not only arise from conscious design. They arise also from *evolution* and *habitualisation* of action (Berger & Luckmann, 1967). People change their actions gradually. They adapt to new situations. When a situation is conceived as problematic, this is a trigger to perform action in an alternative non-standard way (Dewey, 1938). Such a new single action will however not lead to organisational change if not other conditions exist. If the new action is a response to a new demand or situation that is recurrent, this type of action will probably be repeated and then it will possibly be habitualised. The way of dealing with such a situation must be deployed to others in the organisation in order to be institutionalised.

Even if there is not a new challenge in a situation, a new conduct may arise. An actor may discover better ways to respond to a common situation. In that case the new type of action must prove to be successful. It must be considered to be successful by several organisational actors, who also must be prepared to relearn. Institutions have great power on thinking and acting (Berger & Luckmann, 1967; Giddens, 1984). Every time an NB action is performed in the institutionalised way, this reinforces the institution and makes it still stronger. "This is the way to perform business" (figure 5). Institutions have a sustaining power, which sometimes must be violated.

New ways of action will however be incorporated continuously in the inter-subjective body of knowledge in the organisation (i.e. the institution). New situations and more successful performances may give rise to institutional shifts. In such situations the organisational change is however not the primary purpose of the action performed. There are NB actions performed in partly new ways. As a *consequence* (not a deliberate intention) the institution is gradually changed (figure 6). The new or modified actions will have repercussions on the organisations as gradually modifying its institutions.

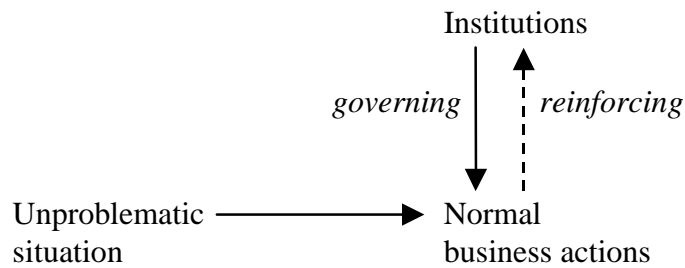


Figure 5 "Business as usual"

Usually one single person does not have the power to change an institution governing the work of many persons. The new ways of action must be distributed among the colleagues. This is often a process of mutual influence and adaptation. The process may not include verbal instructions. It can be limited to imitation of others persons' actions serving as exemplars.

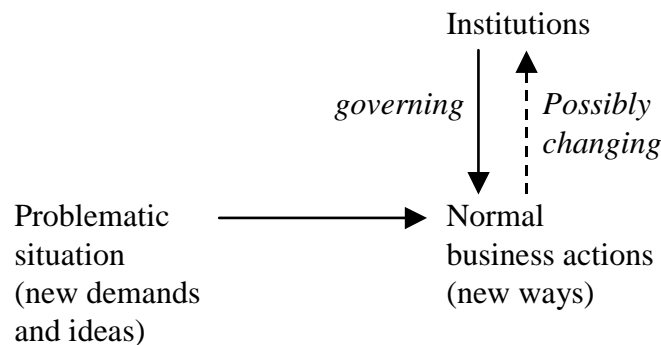


Figure 6 Evolutionary organisational change (work-integrated)

### Continuous improvement as organisational change

I have distinguished between two types of organisational changes: project-based organisational change and organisational change performed directly in the running business. Are there no other alternatives? Design vs evolution should not be considered as disjunct categories. It could be seen as a continuum, with several possible and identifiable categories. Between project-based design and running adaptation a distinct category of change can be identified. It is what many people call *continuous improvement*. Continuous improvement (CI) is an integral part of the change approach of Total Quality Management; confer e.g. Rao et al (1996). CI is not usually made on a project basis. It is performed rather close to the "production arena". After each execution of a business process, the staff within that process should reflect on the process and try to improve it and its action constituents.

Continuous improvement is not performed directly in the running business. The actors take "one small step away" from the NB actions. They assess what has been performed and try to improve it. This approach has resemblances with the project-based development since it involves reflection, conscious design and implementation of new ways of working. Such ways must be institutionalised in order to be permanent. It differs from project-based development

since it is not performed within a separate change organisation (project). It is performed in close connection with daily work. In this sense it resembles running adaptation.

Is continuous improvement really performed continuously? Running adaptation can be seen as a case of organisational change that is performed continuously in the business whenever a need arises. I would like to contest that continuous improvement is performed continuously. A more appropriate way to describe it is to say that it is performed recurrently. We do not perform such changes all the time. It is rather performed *recurrently* on certain occasions.

#### **4 DESIGN VS EVOLUTION – A TYPOLOGY OF ORGANISATIONAL CHANGE**

The described change strategies will probably have different magnitudes of change. Running adaptation will probably involve small changes. Continuous (recurrent) improvement can involve larger changes. Still far-reaching changes can be obtained in project-based design.

Of course there can be different magnitudes of change even in different project-based approaches. The Business Process Reengineering (BPR) concept emphasises changes of great organisational impact (Hammer & Champy, 1993; Davenport, 1993). Such a project should have an innovative nature. On the other hand, a common change project will probably involve changes of more moderate scope.

The smallest change, made running directly in NB action (i.e. work integrated), I call adaptation. The next level I would rather like to call refinement than (continuous) improvement in my typology. I save "improvement" to the next level, which I call partial improvement. Thus continuous improvement will be renamed recurrent refinement. The BPR case I call radical renewal (or innovation).

This typology, with categories from evolution to design, involves thus the following four categories (figure 7):

- running adaptation
- recurrent refinement
- partial improvement
- radical renewal

Davenport (1993) has made a similar division into continuous improvement, project-based improvement and radical innovation. These categories seem to be equivalent to the three last categories in my taxonomy. Davenport does not ground his conceptual division in pragmatic theory. This is perhaps one reason why he does not identify running adaptation as one category of organisational change.

Organisational change is performed through the change of organisational institutions. To call something an organisational change, and thus distinguishing it from normal business action (and change within such action), there must be a change of the organisational pattern of action. All organisational action is aiming at change. Only those actions which have an orientation (directly or indirectly) towards change of other organisational action is called organisational change. Continuous improvement/recurrent refinement and project-based change have a clear intention and therefore a *direct* orientation towards organisational

change. Running adaptation is performed within normal business action and therefore only has an *indirect* orientation towards organisational change; i.e. the organisational change is consequential rather than intentional.

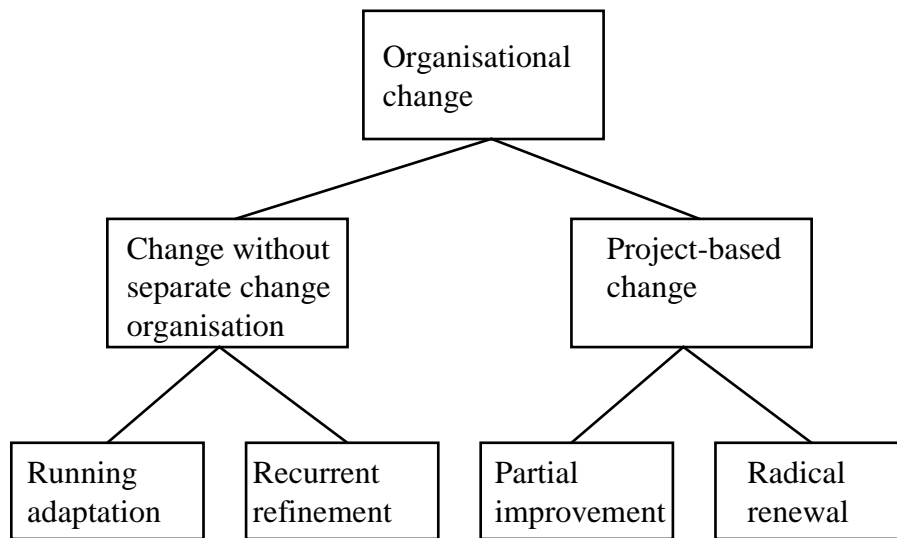


Figure 7 A typology of organisational change

## REFERENCES

- Ahrne G (1994) *Social organizations. Interaction inside, outside and between organization*, Sage, London
- Berger P L, Luckmann T (1967) *The social construction of reality*, Doubleday & Co, Garden City
- Davenport T H (1993) *Process innovation. Reengineering work through information technology*, Harvard Business School Press, Boston
- Dewey J (1938) *Logic: The theory of inquiry*, Henry Holt, New York
- Engeström Y, Miettinen R, Punamäki R-L (Eds, 1999) *Perspectives on activity theory*, Cambridge University Press
- Giddens A (1984) *The constitution of society. Outline of the theory of structuration*, Polity Press, Cambridge
- Goldkuhl G (1998) The six phases of business processes - business communication and the exchange of value, accepted to the 12<sup>th</sup> Biennial ITS conference (ITS'98), Stockholm
- Goldkuhl G (2001) Communicative vs material actions: Instrumentality, sociality and comprehensibility, in Schoop M, Taylor J (Eds, 2001) *Proceedings of the 6<sup>th</sup> International Workshop on the Language Action Perspective (LAP2001)*, RWTH, Aachen

Goldkuhl G (2002) Anchoring scientific abstractions – ontological and linguistic determination following socio-instrumental pragmatism, in *Proceedings of European Conference on Research Methods in Business*, Reading

Goldkuhl G, Braf E (2002) Organisational Ability - constituents and congruencies, in Coakes E, Willis D, Clarke S (eds, 2002) *Knowledge Management in the SocioTechnical World*, Springer, London

Goldkuhl G, Röstlinger A (2002) Towards an integral understanding of organisations and information systems: Convergence of three theories, in *Proc of the 5<sup>th</sup> International Workshop on Organisational Semiotics*, Delft

Goldkuhl G, Ågerfalk P J (2002) Actability: A way to understand information systems pragmatics. In Liu K et al (eds. 2002) *Coordination and Communication Using Signs: Studies in Organisational Semiotics – 2*, Kluwer Academic Publishers, Boston

Hammer M, Champy J (1993) *Reengineering the corporation. A manifesto for business revolution*, Nicholas Brealey, London

Latour B (1992) Technology is society made durable, in Law (ed, 1992) *A sociology of monsters: Essays on power, technology and domination*, Routledge& Kegan Paul, London

Lundeberg M (1993) *Handling change process. A systems approach*, Studentlitteratur, Lund

March J G, Olsen J P (1989) *Rediscovering institutions. The organizational basis of politics*, Free Press, New York

Mead G H (1938) *Philosophy of the act*, The university of Chicago Press

Powell W W, DiMaggio P J (Eds, 1991) *The new institutionalism in organisational analysis*, University of Chicago Press, Chicago

Rao A, Carr, L P, Dambolena I, Kopp R J, Martin J, Rafii F, Shlesinger P F (1996) *Total Quality Management: A cross functional perspective*, John Wiley, New York

Scott W R (1995) *Institutions and organizations*, Sage, Thousand Oaks

Taylor J, Van Every E (2000) *The emergent organization. Communication at its site and surface*, Lawrence Erlbaum, London

Weber M (1978) *Economy and society*, University of California Press, Berkeley

Von Wright G H (1963) *Norm and action*, Routledge & Kegan Paul, London.