The Management of Politics in Technically Related Organizational Change

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Abstract

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A first key variable envisaged is the distribution of power. Is power concentrated at the 'centre' of the organization or dispersed at the 'periphery'? If the distribution of power undeniably influences the results of a change process, empirical evidence suggests that the change process will equally depend on a second variable — the way in which the change itself is managed. Thus, the significance conferred by managers and promoters to the change project — i.e. their style of management — appears to be crucial.

Descriptors: technological change, politics, organizational context, distribution of power, style of management

Introduction

A large part of the literature devoted to technologically related organizational change — these two words are used together here since a technological change is often accompanied by a redefinition of organizational routines — is still based on a technocratic and top-down perspective, in which the initial project has to be designed by experts and then implemented into the organization, with the aim of achieving greater efficiency and better results. Such books offer a normative — quasi dogmatic — view on change. They expose potential problems, propose solutions, point out the costs likely to result from either inability or unwillingness to change, and present the change process as an

Organization Studies 1995, 16/3 449-476 © 1995 EGOS 0170-8406/95 0016-0016 \$3.00 unavoidable requirement in the pursuit of organizational excellence (see Ansoff and McDonnel 1990; Huse and Cummings 1985; Goodman et al. 1982; Beer 1980; Porter 1985 etc.).

Such a conception of change fundamentally relies on two postulates:

- decision makers are supposed to have a clear vision of the future and be able to separate, during the strategy formation process, the formulation and implementation phases;
- change must lead the organization towards greater efficiency via rationalization and transparency.

The first assumption refers to the rationalist model, the basic structures of which are clearly exposed in recent surveys concerning the different models of strategy formation (Johnson 1988; Mintzberg 1990). The second one denotes what we propose to call the 'panoptical temptation' — no darkness allowed, absolute control — following a concept initially presented by Bentham and applied to the field of CBIS by Bannon et al. (1988).

However, this normative conception — albeit still appraised by many directorates — does not correspond to the actual situations in organizations which are still resistant to planned projects of change of which clarity, transparency, reduction of uncertainty are the main objectives (Wilson 1992).

The work completed by Allison (1971), Cyert and March (1963), Crozier and Friedberg (1977), and Pfeffer (1981) — some of the first representatives of the political paradigm — offer us a vision of organizational life dominated by the contradictory interplay of multiple groups of interests, each with their own preferences and objectives, each attempting to obtain resources via coalitions and other kinds of interaction.

The political paradigm proposes various theoretical views on power. Among them, Pfeffer (1981) suggests we focus on the resource dependence and the uncertainty coping perspectives. The first one, notably developed by Pfeffer and Salancik (1978), argued that 'those sub-units or individuals within the organization that can provide the most critical and difficult to obtain resources come to have power in the organization' (Pfeffer 1981: 101). The second one, presented by Cyert and March (1963) and principally by Hickson et al. (1971), describes the power of a sub-unit as resulting from its ability to cope with uncertainty. In turn, such an ability is related to two other variables (Hickson et al. 1971: 218):

- the extent to which a sub-unit's coping activities are substitutable;
- the degree to which the activities of a sub-unit are linked with those of other sub-units (centrality).

As noted by Pfeffer, both perspectives are variants of each other, given that 'uncertainty coping capability can be defined as a critical resource in the organization' (1981: 109). In this paper we will favour the uncer-

tainty coping perspective, because it seems to be more appropriate to the problem of technologically related organizational change.

If power is based on the ability to cope with uncertainty, we can easily understand that a change project focused on reducing uncertainty — whatever its underlying motivations may be — will have little chance of succeeding, even if it is highly-advanced, technologically. In fact, the panoptical temptation, which still largely dominates technologically related organizational change projects, is condemned to run into organizational darkness (Bardach 1977). This situation is particularly true when considering the introduction of computer-based information systems (CBIS). Authors such as Markus (1983), Grover et al. (1988), Pavé (1989), Scarbrough and Corbett (1992), etc. have shown that CBIS enhance the trends towards formalization and thus tend to clash with existing informal arrangements and power relations among actors. It is clear, therefore, that projects of this kind are unlikely to accomplish the objectives for which they were initially designed.

Although the discussion here mainly concerns the introduction of computer-based information systems (CBIS), it could be carefully extrapolated to other types of change characterized by the same pursuit of rationalization and transparency. It can be applied, for instance, to the excessive formalization in contemporary firms often resulting from the introduction of quality management.

As a first step, we present two opposite principles arising from the literature on technologically related organizational change: perpetuation (reinforcement of existing structures) and innovation (emergence of new organizational forms). A basic hypothesis is then formulated in which both principles are linked to a specific distribution of power within organizational structures. In a second step, four case studies of CBIS introduction — two with a concentrated power system and two with a dispersed one — are presented in order to test the previous hypothesis. Such an investigation leads us, in a third step, to formulate more complex relations between the role of conflicts, the kind of power system and a new variable arising from the case studies: the management style. The fourth and last part of this paper presents an integrated model on the role of politics during a process of change — and, in particular, technologically related organizational change — which tries to combine the previous relations into four contrasted scenarios.

Perpetuation versus Innovation

Political analysis seems to be an excellent means of describing the various phenomena which arise around a process of technologically related organizational change. However, the possibilities of system evolution are slim and existing structures are likely to survive in one way or another. Furthermore, the majority of research carried out in this field

carefully details failures rather than successes (see e.g. the works of Burbridge (1987), Friedberg (1983), Kling and Iacono (1989), Markus (1983), Norman et al. (1989), Pavé (1989), Scarbrough and Moran (1986), Walsham (1991), etc.). Most of the time, the existing structures seem to be reinforced as a result of a 'zero sum game', during the course of which the contradictory strategies of the different stakeholders eventually counterbalance each other.

With respect to this, let us refer to the famous 'decision maker's dilemma' described by Crozier and Friedberg (1977: 335–338). Whilst the manager plans a structural reform of one sort or another, he/she may endeavour to obtain a progressive adjustment of the strategies of the different parties concerned. However, he/she then condemns his/her attempt at reform to be weakened in the entanglements of these strategies as each group seeks to orientate the project according to its own rationality. On the other hand, if he/she decided to avoid the organizational game and to impose, ex abrupto, the desired reform, the manager exposes himself/herself to a pure and simple dismissal, to the rejection of the graft — a situation characteristic of numerous traditional enterprises where the computerization process has been imposed from above, without consulting future users. Whatever the solution adopted, the change will be minimal, compelling the decision maker to practice the art of 'muddling through' (Lindblom 1959).

Referring to research carried out on the impact of technological change in the mainstream of organizational theory, Keen concludes:

'[Such analyses] imply, however, that signals from the top often get diffused, defused, and even lost, as they move down and across units whose linkages are tenuous. The more complex the organization, the less likely the impact of technical change; homeostatic, self-equilibrating forces in loosely coupled systems are a major explanation for the frequency of failure of large-scale planning projects.' (1981: 25)

The theoretical discussion developed throughout this paper concerns the role of conflicting phenomena which appear around any change process and the question: Are they a simple factor of 'dilution', unavoidably leading to the reinforcement of the existing structure? In other words, does taking power games into consideration condemn the analyst to an assumption of perpetuation?

The conceptualization proposed by Salerni (1979) provides us with an original and interesting contribution. According to Salerni, the sociohistory of technologies can be envisaged as a succession of cycles, linked in the following way (we will modify the author's scheme slightly for clarity).

1. During the first phase of 'socialization', the operators familiarize and adapt themselves to the specific constraints of the new technical base (procedures to recognize, processing methods to apply in each particular case, orders to comply with in the eventuality of breakdown, etc.).

- 2. During the second phase of 'socialization', the operators progressively discover the possibilities of deviation away from the official work procedures and standards of production, as well as the scale of sanctions with which they are associated.
- 3. A genuine 'counter-organizational system' emerges, within which the turnover decreases, the costs of production increase and control proves to be totally ineffective.
- 4. Then a 'feed-back' phase begins during which the acting managers (strategic apex, hierarchy) become aware of the discrepancy between the pre-fixed objectives and the actual achievements of the system and are driven to devise, and then to introduce, a new technical base as a provisional solution to this discrepancy.
- 5. The new technical base is implemented and a new socialization cycle begins.

Salerni's basic argument is that the social constraints, progressively incorporated into the technology, are just as important in constituting the conditions necessary for technological innovation. In so far as these constraints are perceived, and sometimes even anticipated by the managerial group, they feel the need to continuously put new technical solutions into action. The social constraints are thus both a *hindrance* to the initial rationalization project and a *stimulus* for innovation. There is no doubt that deviant practices create obstacles to the full accomplishment of managerial objectives, but they also directly contribute to the renewal of technical bases and the methods of work organization to which they are associated. In reality, we find ourselves poles apart from the perpetuation principle; in this case, it would be more appropriate to speak of the innovation principle.

The central question underlying our paper thus becomes: To what extent can a link be discovered between both the principles we have just defined (perpetuation and innovation) and the power system in the organization? Let us look at this question more closely. According to Pfeffer (1981), three major conditions are required in order to observe the use of power in organizations: interdependence between individuals or units, heterogeneous or inconsistent goals, and scarcity of resources. Those three variables lead to conflicting situations, but not necessarily to the use of power. For this, two additional conditions have to be present: the *importance* of either the decision which has to be taken or the resource being allocated and the *distribution of power*. Both conditions may be seen as critical when observing the use of power.

The concept of importance is not clearly defined by Pfeffer. We suggest that it may refer to: (a) the number of individuals or units affected by the decision; (b) the non-routinization of the links between the decision which has to be taken and its consequences (Thompson and Tuden 1959). The first critical condition is satisfied in most processes of technologically related organizational change, except if they concern minor adaptations of the existing infrastructure.

The concept of distribution of power is related to certain structural characteristics of the organization. As noted by Pfeffer, 'when power is highly concentrated, the other participants in the system have little ability or motivation to engage in a contest for control which provokes the visible conflict and political activity observed when power is more equally distributed' (1981: 87). In other words, the reactions of participants will be very different depending on whether the decision-making process is centralized (in that one group's influence is very strong and its decisions are imposed on the other participants) or not (in that power is largely diffused and decisions result from the interplay of various actors).

An interesting case of the distribution of power concerns the question of expertise. Many authors have described expert power as resulting from the possession of specialized skills (Crozier 1971; French and Raven 1959; Pfeffer 1981, etc.). Expert power may also be seen as the ability to cope with uncertainty, as defined by Hickson et al. (1971):

- having access to specific information, unknown by other members;
- acquiring/maintaining a monopoly of this knowledge in order to be one of the 'happy few' who can deal with uncertainty and who are thereby irreplaceable or at least difficult to replace;
- making sure that such knowledge is critical or central to other members or units of the organization.

Expert power may appear at any level of the hierarchy and/or in any organizational context. Let us take Crozier's example (1971) of the maintenance technicians who succeeded in keeping a monopoly on the last remaining uncertainty — the breakdown of machinery — by training new engineers verbally and hiding the documentation that would have made the repair of the machinery easier for newcomers. As it is shown in this example, expert power is often characterized by clandestine practices and deviant strategies: it is unofficial and not acknowledged as such in the formal organization.

Crozier's example refers to organizations where standardization (of work processes and performances) has radically reduced uncertainty: in these contexts, the operators are usually unskilled, i.e. with no academic degree, no particular specialization, and no monopoly on critical knowledge. They may have some clandestine expertise, but the effective power here belongs to those in charge of the standardization (computer service, accounts department, methods department, etc.).

The question of expertise must be considered in a very different way in organizations where the operational core is composed of professionals (hospitals, universities, research centres, marketing agencies, newspapers, etc.). Most of the time, these professionals are graduates, specialized in a particular domain. They have a monopoly in this field and their knowledge is critical in the smooth running of the whole organization (hospitals need good surgeons, universities and research

centres need reputable academics, marketing agencies need brilliant designers, newspapers need experienced journalists, etc.).

Compared with unskilled operators, professional experts benefit from a legitimate power: their official function in the organization is to continuously cope with uncertainty. If their tasks were predictable, they would be standardized and could thus be carried out by unskilled operators. However, much judgement and experience are needed here, and in some cases, the tasks have to be adjusted to unforeseen events, requiring ad hoc reactions. This is why such organizations are obliged to entrust professionals with the entire responsibility of doing the job. In other words, they give them a large amount of discretionary power, since their job is difficult to formalize.

As we can see, the distribution of power is directly related to the nature of the tasks carried out by the operators. The more complex the tasks — requiring high skills and/or long-term experience — the more coordination must be carried out via loosely-coupled mechanisms (Galbraith 1973) and the decision-making process decentralized (Mintzberg 1979), the more power is likely to be dispersed among professionals. On the other hand, the more simple the task environment — the more routine and relatively stable it is — the more coordination there will be in the form of mechanisms based upon standardization, and the more power — in particular over the decision-making process — will be concentrated in upper levels of the organization.

In fact, these correlations correspond to certain structural arrangements throughout the organization. According to the typology of configurations presented by Mintzberg (1979), we can observe that in some organizations, power is concentrated in a group at the 'centre' of the organization (strategic apex, hierarchical line or analysts) while in others, power is diffused and emerges from the 'periphery'. Mintzberg (1983) proposes that we distinguish between what he calls centripetal (concentrated power) and centrifugal (dispersed power) systems of influence. In the first case, he points out recourse to coordination mechanisms using formalization such as the standardization of work processes or outcomes, in which the operator has to comply with orders and rules. In the second case, coordination is assured by informal mechanisms requiring more initiative and competence from the operator (mutual adjustment and standardization of skills). Mintzberg proposes another source of power dispersion: the existence of power games (a 'political arena' configuration). However, such an extensive definition appears to be tautological (an organization is a 'political arena' when power games are dominant). Moreover, it does not really describe a configuration because, according to the author, the 'political arena' may be envisaged as a temporary step in the organizational life cycle (particularly in the case of structural transition or decline). Consequently, we will not consider this alternative source of power dispersion as a structural arrangement.

Returning to the central opposition, a centripetal system is associated

with the presence of unskilled operators, their status providing them at most with illegitimate expertise (clandestine knack) while a centrifugal system implies the presence of graduate professionals, benefiting in their status from a formal acknowledgement of their expertise: for example, academics or surgeons. In Zald and Berger's terms (1978), this distinction opposes hierarchical and professional organizations. In the former, 'the units and facilities are "owned" by the group legitimated as the corporate office. That is, legitimate authority resides in the centre (e.g. with a board of directors or chief executive officers)' (1978: 832). On the contrary, in the latter, 'the units (. . .) have clear property rights and discretion which is established in the constitution of the focal organization (and possibly backed up by force of law). Moreover, they may have legitimate rights in the selection of executives and the establishment of policy' (1978: 832).

However, we must point out that the presence of professionals does not guarantee a dispersed power system. More complex relations may be envisaged. In the case of professional operators holding most of the attributes mentioned above, but working in a small enterprise and submitted to the authority of a charismatic leader who centralizes the power, the power system cannot really be considered to be dispersed. Inversely, operators without a particular degree or specialization, but having much professional experience and who have, consequently, gained a large autonomy for the realization of their daily work, may not be said to belong to a concentrated power system. Therefore, it is not the presence of any one single criterion which will help us to decide whether the power system is concentrated or dispersed, but rather their combination (see Table 1).

Table 1
Systems of
Power
Distribution,
Task
Environments,
Coordination
Mechanisms and
Operator's Status

Power System	Task Environment of the Operators	Coordination Mechanisms	Operator's Status
concentrated	simple	formal	illegitimate expertise (clandestine knack, no degree)
dispersed	complex	informal	legitimate expertise (discretionary power, degree)

Our initial question thus becomes: Is there a direct relation between the nature of the power distribution system — concentrated/dispersed — and the extent to which politics will either contribute or block the change process? In both cases, we will of course observe more or less intense power games between the different groups of stakeholders, but the nature and significance of such games should vary notably according to the power system submitted to change. At this stage, we can formulate the following hypotheses:

Hypothesis 1: in organizations where the power distribution is concentrated (centripetal systems), a technologically related organizational

change project will tend to be considered as a threat and will probably lead to failure (rejection, misuses, boycott, etc.), in other words, the perpetuation principle will be favoured.

Hypothesis 2: in organizations where the power distribution is diffused (centrifugal systems), the same change project will tend to be perceived as a tool for extending professional expertise and will probably stimulate, beyond deviant strategies and misuses, a move towards the innovation principle.

We could assert, therefore, that organizational structures, viewed from the angle of power distribution, should have an influence on the type of interpretations that the actors are likely to adopt when facing change.

Four Case Studies

To make the preceding reflections more concrete, we will now present four case studies emerging from our current fieldwork.

Methodology

All cases were selected in the service sector, because comparable conditions for studying technologically related organizational change could be found there. In the industrial sector, change is usually envisaged in terms of automation, leading to man/machine substitution and downsizing: human intervention is thus reduced to a simple supervision of the production process and becomes more and more intellectual. In the service sector, change is often aimed at the rationalization of existing procedures, but so far without totally suppressing human intervention in the production process. The opposition transparency/darkness described earlier is probably much more sensitive in the service sector where production is not entirely performed by machines. Consequently, the latter sector seemed more appropriate to our discussion.

All the cases were committed to the introduction of CBIS and to the fact that it would profoundly modify pre-existing work procedures. Each change project aims at higher productivity, either in terms of work intensity (physical productivity) or cost reduction (productivity in value). They are all accompanied by an increasing control of individual performances, which is required in order to check whether productivity has really increased (without control, there is no means of monitoring the accomplishment of initial objectives). In other words, they provide us with various empirical situations in which the starting point is characterized by panoptical temptation.

Such a selection represents a double limitation regarding a potential generalization of our results. First, the latter do not claim to concern industrial activities. Second, they can only be applied as such to projects of CBIS introduction and not to other technological change processes.

However, we will discuss further the conditions for a possible generalization of our hypotheses.

The cases were drawn from SMEs (Case 1) as well as from larger companies (Cases 2, 3 and 4). All the organizations are Belgian. Case 1 is a Walloon firm and cases 2 to 4 are national companies. In making this choice, however, we were aware of the following limiting factors:

- In certain countries, like France (with the Minitel Programme) or the United States (with a large number of PC's connected to various databanks), organizations are much more accustomed to CBIS than in a small country like Belgium, which means that the weight of power games during a process of technologically related organizational change could be over-estimated here.
- Cultural divergences between European countries, the United States or Japan particularly the hierarchical distance from the periphery to the top (Hofstede 1991) can modify the way in which the management style of an individual project is perceived.
- The unionization rate in Belgium is one of the highest in the world around 80 percent of the employed labour force, see Walsh (1985) leading to a very specific model of industrial relations, attested by various analyses, which has an undeniably strong influence on the organizational life of Belgian firms and the way in which they manage conflict.

Nevertheless, these limitations can help to clarify the debate: in a sector in which human intervention is still important, with a kind of change that clearly aims at rationalization, in a country where the role of power games regarding technology is perhaps more important than elsewhere, the data that we use may be considered as relatively 'pure' with respect to the hypotheses they have to support. However, these hypotheses will undoubtedly have to be adapted and discussed if they are transferred to other contexts (for a recent European study on this subject, see Child and Loveridge 1990).

Data were gathered via an active observation of work processes (over 2 to 5 weeks) and interviews with CBIS supervisors. We carried out all the enquiries ourselves, except for Case 1, which was undertaken by a research assistant. Observation was required in order to describe the actual conditions under which power games could lead either to a perpetuation principle (failure of the initial project) or to an innovation principle (positive contribution to the organizational performances). In each case, we played the role of a newcomer undergoing a probationary period before being hired, and anxious to learn about the work processes. We were assigned to various positions and were given the same working conditions as the operators that we observed. The ethical and theoretical implications of such a method of enquiry are not discussed here (for an interesting debate on this subject, see Homan 1980 and Bulmer 1980) but we are convinced of its potential benefits.

Data analysis was designed in two steps: first, we undertook a system-

atic collection of practices illustrating power games around the introduction of CBIS; second, links were established between such practices, the conditions under which they appeared and their consequences on the change process. By doing this, we do not pretend to test a theory, but we try to support theoretical considerations with appropriate empirical evidence.

Cases 1 and 2 refer to concentrated (centripetal) power systems and Cases 3 and 4 to dispersed (centrifugal) power systems.

Case 1: The Chain-Store

This chain-store originates from a family greengrocery business. At present, in addition to its head office, the business comprises almost 150 branches and employs more than 3000 workers.

The general manager, X, aged 60, is a very influential character. It was he who turned the family greengrocery into a first-rate business. He gives the impression of working like a maniac, is very authoritative, and is renowned for his 'verbal outbursts'. He is both feared and respected.

X has succeeded in creating a real 'corporate identity', which can be seen in the very personal rapport between the personnel and their hierarchical superiors. Different methods have been employed to achieve this corporate identity: the publication of a 'gazette' (intended to inform the entire staff of the company's objectives), the creation of a video supplying information and instructions for the execution of daily tasks, and above all, the production of a considerable number of personalized memorandums sent to each worker (approximately 17,000 different memos on average every year!) which lay down precisely the procedures to be followed.

The chain has been computer run for a long time: initially, using punched cards, followed later by an optical-character-reader system. Nowadays, optical-character readers assure the recording of stock movements (cash-desk incomings and outgoings); they are connected to micro computers installed in the various branches, from which information is sent every evening via the telephone network to the company's central computer. The optical-character-reading system — and even the previous punched-card system — enables a drastic cutback in personnel costs. The labelling of products — involving a large number of the personnel employed in mass marketing, consequently representing relatively high costs — is thereby eliminated. A branch can thus function with, on average, 20 employees, a figure clearly lower than that which is normally observed in similar, like-sized enterprises.

One of the most innovative applications of the computer system concerns the automatic management of the opening of cash registers. In effect, the cashiers must regularly inform the system of the number of clients in their queues. Given that clients change queues, the information has to be frequently renewed, so the procedure begins again for

every new client. At least, this is the official justification of the procedure. However, it also constitutes a powerful means of control over the cashier's output. In fact, at the end of every working day, the longest times for serving clients in relation to the number of goods which pass through the check-out are printed out automatically. The aim of the system is to improve the productivity of each cashier.

However, the union was very suspicious of this application and reacted immediately. Some months earlier, there had been an extensive discussion in the press, centred around a book, in which the workers' representatives had called upon researchers from different universities to expose excesses in the work organization within this chain. They were, thus, in a stronger position to negotiate the means of controlling cashiers' productivity. Their negotiations were aimed at a compromise, whereby they would agree with the idea of registering the longest times for serving customers — in order to stimulate the work pace — in exchange for not identifying an individual's performance. Nevertheless, a personalized measure of each worker's performance is always technically possible, as each worker is identified by a code number. In the case of cash-register errors, by referring to the automatically printed listings, it can be seen that all the processes are indicated and timed by personal code. This is why more individualized practices appear in the actual realization of work at the check-outs.

In fact, the cashiers have rapidly learnt to introduce totally fictitious figures (more often '0') in estimating the number of clients, in a way that completely falsifies all eventual calculations of the score. Their immediate superior (manager, second in charge), although well-aware of what is going on, 'being on the shop floor', is quick to admit that the imposed procedure considerably increases work at the check-out, reducing the length of the queues. Nevertheless, it is especially at times when the queues are longest (Friday evenings, Saturdays), i.e. when, according to the top management, the official procedure should best justify itself, that workers are in the habit of giving totally phoney estimations of the number of clients present in their queue.

Confronted with this situation in a large number of branches, the top management first endeavoured to remind every cashier of his/her loyalty towards the company by explaining to him/her the importance of optimal management in the opening of cash registers. The general manager also threatened the cashiers with spot checks carried out by plain-clothes inspectors employed to ensure the strict enforcement of orders. However, unable to win his case, he was finally obliged to abandon the project.

Case 2: The Bank

This bank is characterized by a traditional hierarchical structure, with a strong centralization of the decision-making process within the headquarters and a heavy standardization of work processes, recently combined with the standardization of outcomes (as each local branch is in competition with the others). The introduction of a company-wide CBIS radically transformed the whole organization of work, but, in fact, reinforced pre-existing bureaucratic trends.

Until recently, only the administrative services were computerized: data entry (transfers, cheques, etc.) was carried out within 'pools'. Today, each local branch — of which there are more than a 1000 — is equipped with an autonomous mini-computer, several terminals and printers, connected to one of the six Regional Electronic Centres and to the central unit of the bank via a network of leased lines. The CBIS structure of the bank clearly reflects this ambivalent wish to decentralize responsibilities at local branch level — particularly in terms of results achieved — whilst maintaining both the previous hierarchical structure and the controlling system.

In practice, however, the introduction of terminals in the branches enables a much more stringent and immediate surveillance of accounts, as well as an improvement of the worker's productivity. In fact, each worker is evaluated on a monthly basis from an automatically calculated score (number of transactions, number of new accounts, number of errors, etc.). Such a system has noticeable effects on workers' remuneration. In addition to a basic fixed salary, workers receive incremental supplements, based on their branch's results and on their own productivity score. In this way, the differences in salaries can range between 15 to 35 percent for the same job.

The branches are equipped with a computer configuration which offers access to multiple applications from one single terminal. The work station becomes multi-functional and henceforth integrates the realization of tasks as diverse as account consultations, data capture or E-mail (communication between different work stations). However, this 'enlargement' of the job is not achieved without difficulties.

Until recently, business or customer relations took precedence over administrative activities. In fact, it led to a distinct separation between counter transactions (account changes, investments, advice) and those which were purely administrative (encoding of credit transfers and cheques, verification of bank balances, etc.) and entrusted to specialized departments at central or regional offices. However, with the increased polyvalence which accompanied the installation of terminals in the branches, this separation progressively disappeared and administrative tasks became more important in the daily activities of the cashiers. Now, cashiers have to record credit transfers and cheques, checking the balances before carrying out a transaction, etc. Their work pace has undeniably increased.

Within such a context, the emergence of deviatory practices, at first sight astonishing, can be observed. These concerned the encoding of cheques. According to instructions given to cashiers, whenever a client cashes a cheque, the transaction must be simultaneously recorded at the terminal, and the till balance must continuously correspond to what is

shown on the screen. Such a principle ensures permanent control over the operator's activities. Moreover the computer can, by simple request, print an entire day's operations per individual work station.

However, the data capture process at the terminal takes almost one minute per cheque. Consequently, if the client comes with a large number of cheques, she/he is likely to encounter a relatively long waiting time. Confronted daily by this situation, numerous cashiers have put alternative procedures into operation, which, at the same time, have constituted a way of improving the quality of service offered to the clientele. The alternative procedure involves rapidly calculating the overall total of payments, with the help of an electronic calculator, followed by asking the client to sign a duplicate receipt (original receipts are kept as a back-up in case of computer breakdown). It is only later, when there are fewer customers or when there is a pause between two clients, that the cashiers record the transaction, cheque by cheque.

Such a system, devised 'on the job', undoubtedly enables clients to be served more rapidly. However, it also succeeds in multiplying the processes of cheque recording by increasing the work time allocated to it, thereby diminishing the workers' productivity.

The top management thus found itself faced with a *de facto* situation, indicated by numerous inspectors' reports and various people in the hierarchy. It was aware of the practical problems posed by recording cheques in the client's presence. However, wanting to avoid the uncontrolled spread of unauthorized practices and preoccupied by the conflicts that these were creating with the second-level management, it finally devised a new procedure. The cashiers were then required to calculate the sum total of all the cheques and charge this debit to an internal branch account which had to be recredited later from account numbers indicated on the cheques. The splitting up of processes is thereby not eliminated, but at least the till balance can be checked quickly, which complies with one of the major priorities set by the top management.

The new cheque encoding procedure in fact leads to recording the total number of internal transfers and thus increases the number of transactions taken into account (n debts + n credits instead of n credits). Each cashier's score is improved accordingly.

When the new procedure was first introduced, it encountered difficulties. The majority of the cashiers continued to use the parallel system, until they discovered that the new method imposed by the top management worked in their favour by enabling them to increase their productivity score. It was only then that they adopted it wholeheartedly.

Case 3: The Teaching Hospital

This hospital is very closely linked to a large university training centre. Its facilities, which are used for teaching, research and practical hospital

experience, are technologically very advanced. The hospital is subdivided into forty different services, all very specialized, several having acquired an international reputation.

Each service is given a large autonomy and is placed under the authority of a specialist professor. The departmental heads have always had extremely fraught relations with the administrative officers of the hospital, and this situation has been reinforced by the recent arrival of an administrator employed by the supervisory authority to 'put in order' the running of the institution.

In the early 1980's, microcomputers appeared in certain services and spread very rapidly throughout the hospital. Until recently, all the work of invoicing patients was sent to a specialized body which encoded and took care of the processing of statements. Very strict standards were developed by the administrative officers, but it was difficult for these to be maintained in the same way everywhere.

Little by little, the different services acquired their own hard- and software. The early adopters were convinced of their scientific possibilities (statistical calculations on the occurrences of certain illnesses, diagnostic assistance, medical research, etc.). Others imitated them, anxious not to be left behind.

In fact in a totally independent and uncoordinated way, more than twenty-nine services have developed specific applications concerning the identification, admission, medical and administrative follow up of the patient as well as the management of analysis laboratories, medical orchestration or scientific research. These applications were installed on several tens of mini or micro computers of different makes, all incompatible with one another! No standardized system of registration, admittance or invoicing was put into operation. In the event of the same patient passing from one service to another, it was necessary to start the identification procedure again, at each level. As a result, numerous recoveries or duplications appeared between one application and another, noticeably in the administrative domain.

Faced with this situation, and pushed by the board of governors which regroups university administrators and representatives of the supervisory authorities, the hospital's administrative officers called upon the services of a consultant. The consultant produced a report which pointed to the fact that many different services had been computerized by the departmental head, who held entire responsibility for the running of the system without any coordination with the rest of the hospital.

The consultant's report advocated an integrated computer system to put an end to the anarchy. The administrative officers decided to follow the consultant's advice and, financially supported by the board of governors, which also put on pressure, it precipitated the acquisition of a new CBIS to coincide with the removal of an important part of the hospital to new premises. The new technical base was soon installed. It is made up of a central mini computer, to which are connected 'clusters'

of micro computers (between 2 to 5 according to the importance of the service) which take charge of a certain number of local operations (word processing, electronic agenda, file processing for each particular service, etc.). The creation/updating of the patient's dossier and the invoicing procedures are carried out centrally in order to quicken the processing and, in particular, to control the activities of the different services. The administrative officers wanted to introduce other applications, such as the internal accounting of each service but they have not yet succeeded.

In reality, the majority of doctors have criticized the new system. They emphasize its sluggishness and its inflexibility, as well as its lack of achievements. Each doctor is arguing that he has already equipped himself from his own resources. There have been a multiplication of applications of a scientific nature, presented by doctors as being too specific to be centralized. Doctors thereby try to justify their maintaining a minimal autonomy with respect to the integrated system to regain control of computing equipment 'improperly' monopolized by the nursing staff for administrative matters. Paradoxically, therefore, whilst the consultant's report was destined to stop the progress of anarchy within the hospital, the opposite happened. The new system is in fact parallel to the old computing infrastructure!

Moreover, the doctors flatly refused to allow their accounts to be computerized. They considered them confidential and did not want administrators to have easy access to this information. It is interesting to note that on this particular point they were able to count on the nurses' support. They all stressed the complexity of book keeping, which requires a specific knowledge of the multiple codes used by each particular service to identify the type of medical practice, the different medical insurance companies, the physicians involved, etc., thereby maintaining that it would be impossible to devise a common accounting programme to suit all departments.

Case 4: The News Agency

This news agency employs about 120 people, seventy-five of whom are editors. Until now, editors' job share mainly consisted in typing and shaping news items that reached the agency by phone, mail or telex, and in translating them into three languages (French, Dutch, German) before handing them to the telex operators in charge of the transmission to daily newspapers. Editors formed relatively stable teams, specialized in the processing of a particular type of information. Inside the team, everybody knew the field of competence of the others so that a large autonomy was given in the organization of daily work.

The introduction of the CBIS threatens to deeply transform this decentralized and informal organization of work. The use of networks is, in fact, an important part of the CBIS project, whether in local mode (integrated word processing and data base shared by the different

workstations) or in external relations (automatic links with foreign news agencies, portable terminals connected by telephone lines to the mainframe). The aim of the CBIS project is to make production structures more flexible, in order to adapt the work pace to the volume of data that must be processed (in particular via an increased control of the editors' job) while diversifying the services offered to customers. The computing project has been presented as a success in the whole press sector.

As most international news agencies are equipped with similar technical bases, information is transmitted automatically and continuously via leased lines. The journalists who work for the agency have portable terminals at their disposal and the information they have gathered can easily be fed into the mainframe. The integrated word-processing system takes care of the automatic conversion of the news into telex mode before it is sent to the editorial offices of daily newspapers. Numerous retranscriptions are thus avoided.

In this context, the editors' job has been radically redefined. They are now supposed to be polyvalent: they are appointed to a different editorial team each day, according to external demands. This principle aims at favouring a better staff commitment in the corporate life: editors have to be 'generalists' and should avoid specializing in a particular field. Their autonomy is undeniably restricted which is considered by most of them to be an intolerable control of their job.

However, one may observe that at the beginning of each day, when they take over from their colleagues, editors sometimes spend a considerable amount of time going through all the news received in the past twenty-four hours, in particular that concerning the field to which they have been appointed for the day. This 'getting into condition' behaviour takes about half an hour to an hour and half per day. During their negotiations with the directors of the agency, unions have succeeded in defending the necessity of this preparation period saying that it guarantees the quality of service offered to the client. Anxious to maintain a consensus within the agency, the top management was forced to accept, and even institutionalize this practice.

One must also recognize that the time saved by the elimination of certain stages in the circulation of information within the agency, is often compensated for by more thinking and correcting on the part of the editors. It is, in a way, a 'perverse' effect resulting from the new possibilities offered by the word-processing system. Compared with the former technical basis (typewriters), where every correction meant you had to resort to rudimentary and constraining means (eraser, correcting fluid, glue, etc.), working on a terminal allows far more flexibility in making corrections. Now, the editor does not hesitate in polishing up his/her text and modifying it as many times as is necessary, in a kind of race for 'overquality'. The agency's top managers are forced to admit that working on a terminal in fact takes up more time — 10 to 15 percent, compared with the former system. Nevertheless, productivity

gains do appear, they argue, when the processing and transmitting process is viewed on a global scale.

The social aspects of the CBIS project had to be negotiated with the powerful trade-union delegation. Officially, the top management's aim was to create a consensus climate around the new technical base, by regularly resorting to information and dialogue procedures during the implementation process. What actually happened, however, was that negotiations were often difficult, as indicated by the recent strikes (which had been very rare until then). The trade unions finally secured the level of employment by providing the agency with one of the most 'progressive' collective agreements in the whole press sector.

The result of their action is all the more remarkable since one of the explicit aims of the computing project was to cutback on personnel costs. Admittedly employment has been maintained only by considerable increase in the volume of work, but union pressure has led to some protection for the agency's workers. The signed agreement states that the personnel hired for an unspecified period cannot be made redundant due to the introduction of the new technology. Moreover, the top management has promised to implement a policy of professional conversion for the categories of personnel whose status and qualifications are the most threatened, in particular, telex operators who risk downgrading, when the new technology makes their function redundant. Finally, several clauses of the agreement guarantee protection of journalists' jobs, limit the control of individual performances — which initially was announced as one of the main objectives of the CBIS project — and safeguard a work pace suited to each individual.

Power Games, Power Systems and Management Styles

These case studies bring us to the main component of our paper. In returning to the distinction between concentrated and dispersed power systems, we can observe that each individual project of change occurs under very specific conditions.

Change as a Threat

In the first two situations (concentrated power system), the introduction of the CBIS may be seen as a threat to the operators, a source of dequalification and eventual job losses. The activities requiring less qualified workers (stock control, recording of operations, etc.) are usually the first to be formalized by introducing machines, so it is here that the risks appear to be greater.

Note how the computing projects are characterized in both cases by the pursuit of rationalization (increased work pace, cost reduction, tighter control of tasks). However, there is an important difference between the

chain-store and the bank. In the latter case, the top management succeeded in playing an intermediary role between the hierarchical line — anxious about conforming to the rules — and the branch operators, preoccupied by the length of time a client had to wait. A collective interpretation of change has been successfully negotiated with workers situated in different hierarchical positions, who defend diverging interests and consequently display opposing strategies.

On the one hand, second-level management felt that applying the rules to the letter would have caused problems. They listened to the workers' justification but, as management, they could not support practices 'devised on the job'. Rather than supporting the cashiers' interests and relaying their problems with the system to the computer specialists, they placed their own strategic interest on the side of the CBIS department. In a context of uncertainty, most of them wanted, at any price, to show themselves as being 'on the side of change'. However, the events which followed went against them, since the top management in some way officially 'recognized' the cashiers' behaviour.

On the other hand, the 'front' position of the cashiers makes their clandestine practices readily understandable. The attitude they adopt when faced with a client during the processing of a transaction on terminal is significant. The time during which 'nothing happens', between screen editing and gaining an impression of a document, causes embarrassment, gestures of annoyance, words of explanation, etc.

Confronted by these contradictory interests, the top management proposed an agreement which appeared to be acceptable to both parties. By intervening in this way, the top management succeeded in equating the profits and losses of the different stakeholders. Each received, in effect, some compensation (the cashiers are recognized as innovators, the members of the hierarchy as guarantors of another rule) and all accepted certain concessions (the cashiers have to submit to a new procedure, the hierarchy has to admit that an illegitimate behaviour has become quasi official).

Change as a Stake

The structural conditions in which the change processes occur are noticeably different in the cases of the hospital and the news agency. Here again, completely contrasting methods of managing change can be observed.

In the teaching hospital, the process of change was initiated 'from the bottom'. Several departmental heads launched the change themselves by purchasing micro-computing equipment, developing their own implementation strategies and spurring on a movement amongst their colleagues, who rushed into the computerization process in less than two years. The new technical base and the modification of the work organization clearly correspond to key professional stakes for these qualified operators. They can henceforth display and/or reinforce their

technical expertise vis-à-vis the administrative staff, develop the scientific dimension of their job, dispose of a new marketing tool, etc.

However, in the second stage, an attempt was made by the top management to take the increasing use of computers in hand. Pushed by the supervisory authority (to whom the financial resources belong), the administrative officers asked a consultant to carry out an organizational audit. Once in possession of this report, they decided to follow its suggestions and install an integrated CBIS which ultimately ended in relative failure (refusal to set up the accounts on the new system, juxtaposition of the former and new infrastructures, etc.). In behaving in such a way, the administrative officers were endeavouring to reinforce the control procedures on the doctors' activities, to limit their room to manoeuvre, to cut back the departments' expenditures and, presumably, even if this aim had never been clearly mentioned, to 'quash' the feudalism existing in the different services. We can observe here the classic confrontation between, on the one hand, a group of directors who want to install a control system close to the standardization of procedures and, on the other, a group of well-qualified professionals who have no intention of submitting to the dictates of a centralized administration (Locke 1980).

A reverse situation can be found in the news agency since the computing project came from 'the top'. From the outset, the top management assigned to its project, as main objectives, cost cutting — notably with regard to personnel — and a radical redefinition of the work organization. However, it soon had to face up to the facts that the editorial work required more time than previously (due to the race for overquality and to the period of 'getting into condition'); that the expected redundancy of telex operators was socially unacceptable (these people were finally converted into copyists); and that the agreement with the union forbid a reinforced control of individual performances.

Confronted by this undesirable situation, the agency's directors decided to appear flexible. Anxious to preserve 'a consensus climate', but aware of the unions' influence, they agreed to negotiate — sometimes toughly — with them. Certain practices devised on the job were even institutionalized, such as the period of 'getting into condition' (as in the bank when the top management officially recognized the alternative method of cheque recording). By proceeding in this way, the directors acknowledged the political dimension of the change process, and although the final result did not correspond to that which was initially envisaged, it is a relative 'success'. The agency runs smoothly and has been able to take on a considerable growth in its volume of activities. The 'fitness' of the top management consisted in showing itself capable of modifying the significance of its project, initially conceived as a rationalization attempt, into a potential stake for professionals — a stimulus for their strategies of excellence.

Towards an Integrative Model

The insistence on the 'interpretative' role of top and upper levels of management cannot hide the rationalist basis of any project of change. Conflicts and diverging interests are always present . . . and they cannot be reduced and/or avoided by managerial interventions. Any rationalization attempt inevitably leads to new uncertainties, irrespective of how the implementation process has been conducted. Nevertheless, we are now able to identify some of the conditions — both structural (power system) and cultural (management style) — in which these conflicts influence the course of change.

The system of power distribution is characterized by relative stability. It is part of the organizational structure and cannot be modified by a simple managerial intervention since it is related, as shown in Table 1, to other variables such as the task environment of the operators and coordination mechanisms. It is thus not very surprising that the power system remains unchanged in our different case studies, despite the introduction of CBIS. A change in the power system would require a radical redefinition of the nature of the tasks and the coordination mechanisms employed. It would correspond to the emergence of new actors and to the passage from one structural configuration to another. Miller and Friesen (1984) showed that such a dramatic change is unusual and only occurs when a lack of adaptation to external constraints becomes more costly than internal restructurization. Most of the time, it does not result from a rational and deliberate choice, but rather from an adjustment, after a long period of incremental changes, to external as well as internal constraints.

The management style is a much more flexible factor, directly related to the values which inspire managerial interventions, and although the latter are narrowly limited by the existing power system, they may define, nevertheless, a proper course of action. By paying more attention to the cultural and symbolic factors — and to the significance they attribute to the change project - managers are thus susceptible to modifying the rules of the political games being played within their own organization. Of course, they cannot manipulate the symbols and values as they wish and force all the members of the organization to share their views. The change process will still be dominated by conflict, and its course will remain fundamentally unforeseeable and uncontrollable. Thus, our emphasis on the crucial role of managers in the mental construction of change does not imply that the change strategy might be deliberate, resulting from managerial choices defined a priori. These choices are in fact largely emergent, arising from trials and errors, progressively adjusted to the personnel's reactions, to the technical problems encountered, and more generally to the context in which the change process occurs (Mintzberg and Waters 1985). This is why no ready-made procedure, no pre-existing method, or formalized guide can guarantee the success of a change process. Each organization formulates

its own method of change as well as the adequate criteria to evaluate it. For this reason, many change projects may be viewed, whatever their origin, as incremental processes, consisting of complex interactions between multiple variables among which the style of management seems to play an important role.

Perpetuation versus Incrementalism

We noted earlier that unskilled operators can be expected to be found in a concentrated power system. This does not rule out implicit expertise, however, even though it may not be considered legitimate. The ambiguity of the term expertise can be seen here, in that it may simultaneously indicate the requirements needed to hold a job (legitimate expertise) and the implicit expertise devised 'on the job' by the operators (illegitimate expertise). This ambivalence will often be a central factor dictating the fate of any change process.

If the change process means more control and restricted freedom, it is not surprising that operators resist what they perceive as a threat to their power and autonomy. In reaction to such resistance, most managers launch new initiatives aimed at even greater rationalization. In other words, they tend to develop a panoptical view on change. This can be seen as a vicious circle, notably defined by Merton (1968): the more emphasis placed on rationalization, the greater the chances of rejection and refusal by operators who see their clandestine expertise denied, and the more managers will reinforce the initial tendency towards rationalization. Such a situation — clearly illustrated within the chain-store (Case 1) — seems to give support to the *perpetuation principle*.

However, should we conclude that a technologically related organizational change within a concentrated power system is condemned to failure? Not in the least. One can in fact imagine that, as a result of a learning process, the managers of change will abandon their rationalist illusions, not only by acknowledging the existence of implicit expertise but also by intervening as a stakeholder to seal alliances with other groups of actors. We can speak here of a 'political' style of management, as opposed to the panoptical temptation.

Just as the rationalist model can be considered as a theoretical basis for the panoptical temptation, the political model may be seen as a conceptual basis for practices and attitudes that can be defined as 'political' (Pichault 1993), because they recognize the predominant role of power relations in the change process. Of course, any managerial attitude can be defined as political since it lies within a context of power relations. However, when we speak of political management, we are referring to the way in which managers develop practices and attitudes, taking into account the existence of power relations. If the latter are ignored or minimized, due to a rationalist view on change, one can speak of panop-

tical management. In other words, it is the reference model of managers which is envisaged here: either the rationalist or the political paradigm. Such precisions are linked to the fact that the word 'political' indicates both a reality (the power games) and an analytical model (the political paradigm).

Another principle thus comes to light between the pure perpetuation and innovation principles. We suggest calling this the *incrementalism* principle in that it assumes a progressive adjustment of the different stakeholders' strategies within the same organizational framework. The change projects are here still initiated by the dominant groups: the top management and its allies. Therefore we should not expect a political style of management to lead to radically new ways of governing human systems, but rather to limited improvements and ad hoc solutions applied to localized problems (Lindblom 1959). The case of chequerecording within the bank (Case 2) offers a concrete example of this principle.

Such a three-dimensional game (most often putting together the strategic apex, the hierarchy and the operational core) clearly illustrates the regulating dynamics described by Alter (1985). The latent conflict between those called the 'Innovators' (operators who take hold of the change project via alternative behaviour) and the 'Managers' (middle management anxious to comply with official procedures) becomes worse and worse, so that it requires the intervention of the directorates to legitimize the deviant practices of the Innovators, while trying to keep them within certain limits:

'Top managers intervene as an essential third party on this battleground. They support the Innovators (...) while limiting their progress. To do this, they partially protect the Managers in such a way as to preserve a certain social control over the institution. Directions are thus a basic regulation within the innovation system: they assure the continuity of the production process while avoiding pronounced deviances. They also translate into rules the innovative practices of the groups supporting change'. (1985: 187, our translation)

However, when adopting a political style of management whereby the operators are seen as stakeholders, those in charge of the change project can bring about, consciously or not, a movement towards an official recognition of the operators' expertise; in other words, towards a more dispersed (centrifugal) power system. Such an evolution may not result, as it is usually believed, from the simple introduction of participative methods, thanks to which operators could express their wishes and suggestions. In fact, most of these procedures require a previous consensus, which has little chance of being obtained. It is more a question of recognition, or legitimation, of the power dispersion between multiple stakeholders within the organization.

Dissidence versus Innovation

In organizations where the distribution of power is dispersed, the operators' expertise is official and legitimate: it is part of the conditions which are required for the achievement of the organization's primary tasks.

Here the experts have enough resources at their disposal to impose a severe failure on all panoptical attempts and even to prevent them appearing. They will argue that the complexity of their tasks, the mission that they fulfil in relation to the clients or the interdependence of their activities is incompatible with all plans attempting to control their performances, to reduce costs, and to formalize procedures. Numerous studies agree on this point. According to Ginzberg, the rationalists' systems 'which attempt to impose formal rules and procedures to control organization members, are essentially inconsistent with organic/informal organizations, and will be resisted' (1980: 376).

In the same way, Ein-Dor and Segev (1978: 1069–1071) are sceptical of the chances of success of a CBIS (that they only envisage as a means of formalizing procedures) in a decentralized structure. They do not put the chances of success much higher in the case of 'immature' organizations, i.e. where the tasks are not standardized. Moreover, if the environment is unstable (difficult to foresee), the experts will present stronger arguments against attempts to rationalize.

One may allege that concentrated (centripetal) and dispersed (centrifugal) power systems are relatively similar in the end. Rejection can be observed in both cases, usually provoking the failure of the initial project and the maintenance of the status quo (perpetuation principle). However, in a dispersed power system, these reactions lead in fact to hybrid situations (for instance, the coexistence of local equipment with a central unit, as in Case 3). A temporary balance is thus established between the central power and the periphery, the issues of which are fundamentally uncertain (Abandon the project? Brutal imposition?). Of course, if managers persist in their panoptical attitude, it may encourage a move towards a concentrated power system. Both situations differ, however. This is why we suggest a dissidence principle, knowing that a drift may occur at any moment towards the perpetuation principle.

A final possibility lies in the principle discussed at the beginning of this paper that top managers conscious of being confronted with professional operators, abandon their panoptical projects and throw themselves into a more political style of management made up of negotiations, compromises, and exercise of power (using critical resources such as financial means). Case 4, illustrates such a possibility and clearly shows that the process of change is unforeseeable. Here, though, it evolves towards a situation which appears to be satisfactory for both sides: the basic organizational missions are fulfilled, perhaps better than before, while the editors succeed in restoring their manoeuvrability. If

deviant behaviours emerged in opposition to the initial project, they undeniably contributed to improving the quality of service and the smooth-running of the structure. This is why we speak of the *innovation principle*.

In summary, therefore, the main hypotheses on which our model is based tend to integrate the rationalist nature of any project of technologically related organizational change, the conflicts that it inevitably provokes within the organization, the system of power distribution inside this structure and the style of management adopted by the project managers.

- 1. A project of change managed in a panoptical way in an organization characterized by a concentrated (centripetal) power system has more chance of reinforcing the existing structures (perpetuation principle).
- 2. A project of change managed in a political way in an organization characterized by a concentrated (centripetal) power system has more chance of giving rise to reciprocal adjustments between the different stakeholders, leading firstly to limited and/or local improvements, with a tendency to evolve, in a second step, towards a dispersed (centrifugal) power system (*incrementalism principle*).
- 3. A project of change managed in a panoptical way in an organization characterized by a dispersed (centrifugal) power system has more chance of creating clashes and ruptures, with a risk of evolution towards a concentrated (centripetal) power system (dissidence principle).
- 4. A project of change managed in a political way in an organization characterized by a dispersed (centrifugal) power system has more chance of stimulating new and unforeseen evolutions capable of satisfying, simultaneously, the interests of various stakeholders (innovation principle).

Table 2 gives a brief presentation of the model, focusing on the main reactions potentially associated with each style of management.

Table 2 Management of the Change Process, Power Systems and Potential Reactions of Stakeholders

Panoptical Style of Management

Political Style of Management **Concentrated Power** Dispersed Power System System risk of boycott, rejection, defense of threatened expertise, misuses, etc. constitution of autonomous territories perpetuation principle dissidence principle negotiation of clandestine personal commitment, pursuit of practices in view of making professional excellence them legitimate incrementalism principle innovation principle

N.B.: the arrows represent potential trends

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