Article

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Union Assimilation of the Ergonomic Approach and the Transformation of Social Relations

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A large-scale project to introduce a participatory ergonomics approach into one hundred health care establishments in France was conducted by a hospital sector union. The project took the form of ergonomics training provided to union delegates to committees responsible for health, safety and working conditions. Data on the project's progress and results show that when unions had assimilated an ergonomic approach, the view that hospital actors (employees, union members, management) had of one another was modified, as were their relations concerning working condition issues. The conditions for the success, extension and durability of this approach are discussed.

In France, the analysis and improvement of working conditions in businesses with over 50 employees has been assigned by labour legislation to the Comités d'hygiène, de sécurité, et des conditions de travail (Health, Safety and Working Conditions committees – CHSCTs). Chaired by the employer, this committee includes a doctor and three to nine employees, and must meet on a regular basis. For more than twenty years, certain unions have sought to support these committees by providing their CHSCT delegates with ergonomics-based training. The characteristics of this training programme, the pedagogical questions that it raises and the changes that it

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brings about in participants have already been described by some of its early initiators (Montreuil and Laville 1986; Teiger and Daniellou 1987; Teiger and Laville 1991).

Besides an increase in the technical expertise of the individual union delegates, it would appear that the assimilation by unions of an ergonomics approach brings about a series of changes in the way union delegates go about their work, in their relations with employees and managers, and even in their way of seeing their work in the context of the whole company. This is one of the main conclusions arising from a large-scale project involving one hundred health establishments, carried out in France in 1990–91 by the Fédération CFDT Santé-Sociaux, the health sector wing of the Confédération française démocratique du travail (CFDT). This article first describes the perspective in which this project was designed and conducted, including its main characteristics and methods. Then, after providing an overview of our evaluation approach and its general framework, we will explain how it has produced not only real changes in certain work situations, but also changes that affect, to various degrees, the social relations within establishments. We will conclude by discussing the conditions and means required to continue and extend these changes.

LA PREUVE PAR CENT: OBJECTIVES, ORGANIZATION AND DEVELOPMENT

Since the end of the 1970s, the Fédération CFDT Santé-Sociaux has invested considerable effort in the area of working conditions (Pichenot 1992). In 1990, following large-scale strikes by nurses, the federation began a new phase by organizing, in over a hundred health establishments throughout France, a training programme, called *La Preuve par Cent* (Proof by a Hundred). The aim of the programme was to familiarize the Federation's members on the CHSCT's with an ergonomics approach (Gadbois et al. 1992, 1994).

Most of the health establishments involved were hospitals, but clinics and retirement homes from the public and private sectors also participated. A team of four CFDT members, of whom at least one was an elected delegate to the CHSCT, was formed in each of the establishments. These union members received ergonomic training which was organized by the Fédération CFDT Santé-Sociaux and delivered by specialists. The sessions involved seven days of training spread over nine months, and brought together approximately ten teams at the regional level. The knowledge and methods learned in the classroom were simultaneously tested in each team's workplace through the study of a real work problem. Each team had previously chosen its problem, in conjunction with their union section,

based on criteria of feasibility and current importance. The teams received advice from the ergonomists in charge of the regional training sessions.

The idea of the training programme was to closely combine an introduction to the theory of the analytical tools of ergonomics with the use of these tools in the real-life, day-to-day context of health establishments. The training programme thus followed a path that began with the problem in question and ended, through the analysis of a work activity, with a proposed solution. If we describe in this paper the main stages of this path, it is not because they themselves are groundbreaking. Rather, what is innovative is that this approach was assimilated by the CHSCT delegates and by the other hospital actors associated with their work, none of whom were or had any intention of becoming professional ergonomists. The objectives of each stage were as follows:

1. When a dysfunctional situation is perceived, identify it and define its field of analysis. This is not so simple, since it goes against natural tendencies.
2. Discover implicit or explicit spontaneous hypotheses that people put forth, then put them into a more complete and easily controllable form.
3. Define what is necessary to control these hypotheses. Construct and implement ways of systematically collecting data and thereby allow the hypotheses to be tested. In other words, construct data collection methods adapted to the problem at hand.
4. Analyze the data and draw conclusions about the hypotheses.
5. Propose solutions.
6. Put the study's results into a dossier that will serve as both a technical requirement report and a basis for negotiation.

It was not simply a question of acquiring an analytical methodology for work situations, but also of learning how to use these analytical tools from the viewpoint of a particular social position, that of a union delegate to the CHSCT. In addition to learning how to observe and how to collect and analyze data (observation of the activity, surveys, analysis of dysfunctional situations), each CHSCT committee also had to:

- define a priority change which was attainable and involved as many employees as possible;
- maintain this priority for a year;
- develop the ability, based on analysis and involving as many cases as possible, to create solutions to improve work situations;
- convince decision makers to negotiate, approve and apply solutions.

This was accomplished through the development of dossiers, new relations with the decision makers and the mobilization of the CHSCT's, which meant acquiring strategic and technical abilities.

The problems that were studied were quite diverse, directly reflecting the main questions that are asked in both the patient care services of health establishments and the technical support services (kitchens, laundry, laboratories, waste incineration, etc.). Table 1 gives a few examples and indicates the analytical methods implemented.

TABLE 1

Typical Problems and Analytical Methods

Establishment	*Theme*	*Methods Used*
1. Antibes	Working conditions of administrative personnel	On-site and observation of movement and malfunctions
2. Arles	Handling of patients and back pain	Observation of the use of a hoyer lift Questionnaire on back pain and use of handling methods
3. Dignes	Disposal of hospital waste	Observation of recycling and management of waste from production onwards
4. Greoux	Care schedule, front desk staff and nursing assistants for patient washing	Observation of nursing assistants and their actual planning schedule Measurement of hygrometers and temperatures
5. Marseille	Lack of communication, demotivation factors	Recording the report taking that occurs during shift changes
6. Nice	Work activity of a nurse when leaving the operating room	Observation of technical acts, visual activities and material employed
	Pharmacology service	Survey of risks
7. Toulon	Use of antimitotic products	Observation of activity in two different preparation situations

This training programme brought about significant changes in the work situations considered: modification of material or premises, different organization of night shifts, procedural changes in the management of internal and external telephone calls, reorganization of the operating schedule of the chief surgeon, and so on. These changes have proven to provide high quality, relevant, efficient and satisfying solutions to recurring problems.

Nonetheless, in addition to improvements in working conditions and an increase in the union delegates' technical abilities to study these types of problems and propose solutions, there is the union's assimilation of an ergonomic approach based on work activity analysis. This approach has brought about significant changes in the relations between the various hospital actors, which is the point that will be developed here.

METHODOLOGY AND EVALUATION FRAMEWORK

The evaluation of the aforementioned changes contained three aspects which involved both observation and survey: firstly, ergonomists and sociologists met with thirty union teams during the different phases of the project (introduction, regional meetings, national meetings); secondly, an intensive follow through was conducted with ten of the teams in their clinics or hospitals, thereby allowing a close observation of work execution; lastly, a more quantitative approach was used during the national meeting at the end of the project when a questionnaire was distributed to the 65 participants.

The evaluation of the changes brought about by the Preuve par Cent programme, a few of the key elements of which will be discussed here, is not only based on *a posteriori* observations but also on an attempt to understand the overall work carried out by the union teams.

Not all of the elements in the evaluation will be discussed in this article. Rather, a few aspects concerning the representation of certain actors (employees, upper and mid-level management, and union members) and the social relationships between them will be examined. These elements will allow us to demonstrate how this type of project can be seen in the context of what Rosanvallon defines as an "intra-negotiation process" between employees. Above and beyond the classic union-management confrontational type of negotiation, there are many other social relationships that enrich the negotiation process. We agree with Rosanvallon's argument that unions can no longer be content to have "unified collective representation". The Preuve par Cent programme can thus be seen as a step forward in the "management of a system of differences" which will allow unions to "see themselves as powerful social arbitrators even among employees" (Rosanvallon 1988: 183-190).

NEW INTERACTIONS BETWEEN HOSPITAL ACTORS THROUGH ERGONOMIC PRACTICES

Changes in working conditions and organization always entail different issues for different employee groups. These issues include financial obligations,

changes in work methods that are positive in some ways but negative in others, changes in relational modes between employees, modifications in the relational balance between different departments, and the context underlying hierarchial relationships. All this is to say that, in this field there cannot be a change that is not accompanied, in some way and at some time, by negotiation.

In this field, however, the usual institutional procedure for negotiation has proven to be insufficient, if not inappropriate. The problem here can not be seen as a choice between alternative options which are *chosen from the start* and which divide two opposing sides, according to their institutional positions along the habitual union-management divide. Rather, it is a question of searching collectively for a better organization of work, defined through an objective analysis whose validity is recognized by all of those involved.

This process, which we will call "intra-negotiations", is different from the usual institutional negotiations in that it requires not only a social adjustment between two partners having their own interests, but also the technical development of new hypothetical work situations to which both parties can contribute their abilities and strengths. These transformation objectives are therefore achieved by going through a number of modifications at various levels, using suppler, unofficial channels and new alliances. These interactions may well integrate more formal aspects (union-management negotiation, interplay of personnel representatives) but they generally take the form of a change process.

In any case, this was the experience of the Preuve par Cent teams. They developed an approach – quite different from traditional institutional procedures – where negotiation was present from beginning to end, with an increase in terms of occurrence, objects, actors and form. These four aspects of the extension of the negotiation process are naturally related. Without describing in detail the interplay between these aspects, a rapid overview following the various stages of the process will be given.

Negotiations Dealing with Objectives from the Very Start

Faced with diverse work situations and numerous problems in working conditions, one question stands out above the others: what is the first problem that needs to be corrected, what priorities need to be established? A hospital is not a homogeneous whole, and except in special cases, like an outdated kitchen or laundry room, it is very rare that one objective takes priority over the others from the beginning. The choice of an objective is thus subject to negotiation. Beginning in an institutional framework such as the CHSCT, the first goal of negotiations may be to decide who will answer

this question. Will it be the CHSCT itself (through its own resources or by adding complementary abilities), outside experts or an internal committee whose composition and subcommittees are as diverse as possible? There are various options which differ in terms of capacity and legitimacy.

The second question that needs to be answered concerns the method used to draw up a list of possible objectives and to choose between them. Will only a small number of people, those considered to be particularly well placed because of their institutional (CHSCT member, doctor) or hierarchial positions (head nurse), be asked or will all the employees be consulted? Who will have a say in the synthesis of the collected information and what criteria will be used to choose priorities? There is much to be negotiated in such situations and the Preuve par Cent teams came up with very diverse formats depending on their establishments, in each case trying as much as possible to ensure that they had a say in the process. It is worth noting that the degree of participation in the process had an influence not only on the direction chosen but also on the quality of the follow-up to these projects and their impact on the overall atmosphere in the establishment.

Negotiations on Method and Procedure Throughout the Whole Analysis

Once the problem to be examined has been chosen, a study plan and methods have to be defined and implemented. As with the previous stage, there is much to be negotiated. A good example of this concerns access to field situations, as it brings into play various actors and forms of negotiation.

Studying work activity requires access to the field. This permission is granted by the employer and follows naturally from his or her agreement with the object to be studied, which is decided upon during the initial negotiation phase. However, management's agreement alone is not sufficient. Going into a department to do a survey or observe work requires the agreement of the head nurse and the employees themselves. The managerial staff is directly concerned by any attempt to improve working conditions in its sector. Not only does it have an interest in the results, it is naturally associated with and even directly involved in such an undertaking. Once upper-level management has agreed, the managerial staff should, by definition, agree. However, its acceptance of the project should be explicit, as should the form of its participation.

The approval of the employees who are to be investigated and observed is not automatically obtained either. Naturally, ergonomic observation cannot be conducted without their consent. This consent is dependent upon their assessment of any subsequent complications that they might encounter once the observations have been reported. It is therefore

necessary to negotiate with them as regards the execution of the study and on assurances concerning its practical consequences. These questions of method and procedure are discussed between the employees in question and those who have initiated or are conducting the study. They include the acceptability of proposed data collection techniques (direct observation of the activity at the work station, pencil-paper, video recording), the participation of the employees, the credibility of the guarantees, how the information will be returned to the employees, and so forth.

Given that hospitals are places where there are multiple interdependencies between departments and professional groups, a field study often brings to light the involvement of other actors than those whose working conditions are the focus of the study. It then becomes necessary to inform these actors that their activities need to be included in the survey, which often requires further negotiation. Take, for example, the case of a survey examining the possibility of changing the equipment used by cooks. It became evident that the survey could not be limited to the cooks but needed to include all of the kitchen employees. Explanations were then required so that those involved would not see the study as being biased, thereby creating insurmountable difficulties. Likewise, in a study on disruptions in the activity of nurses caused by incessant telephone calls, it was observed that in addition to examining the supposed mistakes of telephone operators, it would also be necessary to study the conditions causing head nurses, — who are constantly on the move — to ignore their portable telephones. This implied, however, that the head nurses had to agree to having their activities investigated.

The need for negotiations is illustrated in both examples. These negotiations must ultimately contribute to building and testing the status of the team in charge of the study.

Negotiations when Defining and Implementing Solutions

Combine Abilities in Order to Design Better Solutions

Designing possible solutions requires a wide range of knowledge and abilities. This requirement implies a new approach to negotiating, an approach that is innovative with respect to both the object of study and the people involved.

Whether we are concerned with physiology, building design, epidemic risk, regulations concerning waste disposal, machine operation, work organization or even the methods for discussing these questions, the ergonomics approach brings together and integrates diverse types of knowledge and methods. Union teams that have implemented it have often become quite

involved and have called upon very specialized types of knowledge, even though the main thread – the ergonomic analysis of work activity – that ties all this knowledge together remains relatively "simple".

Each actor involved must continuously question the limits of his or her own ability, since the possible contribution of other experts must also be kept in mind. Who has the most knowledge of certain principles or experience with certain methods? At a technical level, the implementation of an ergonomics approach calls upon numerous abilities within and outside the establishment: firstly, the employees' experience of their activity; secondly, the specialized knowledge that other employees have of their occupations; and, finally, the outside abilities coming from other hospitals, consultants, scientific research centres, and so on.

It cannot be assumed that the abilities needed for a project that is motivated and guided by employee representatives will be automatically provided. Work groups must open a dialogue with technical representatives (and not only heads of personnel), since they are not only capable of and entitled to negotiate but are also open to enriching their own occupational practices. Heads of maintenance departments, safety engineers, head nurses or senior doctors, those who are most often asked to contribute to solutions, see their view of their role questioned by the new ergonomic investigation methods of the employee representatives. In the beginning, this frequently gives rise to reservations that take the form of arguments over authority or, even more often, of doubts about the scientific rigour of the approach.

These obstacles prove to be surmountable as soon as the employee representatives become aware of the characteristics and constraints of the other employees' occupations and take care to conduct negotiations that guarantee four points:

- the scientific or methodological support available to the team;
- the transparency of each person's role (there is no intention to encroach on a partner's responsibilities);
- the management of a solution so that the expert in question benefits by using these new methods and integrates them into his or her own practices;
- the provision of indications or arbitration that proves that the team in charge of the study is making a serious effort to take into account the personal criteria and specific approaches of these decision makers.

This last point is not a concession but rather a powerful strategic element. With regard to working conditions, those who are in decision-making positions have, by default, significant power since they are the ones

who buy, design, organize, develop, etc. It is therefore necessary that they understand, at the right time and in their own words, any new approaches. However, once this condition is met, their cooperation is ensured for both the analysis of the current situation, the search for solutions, and at the time of the final decision.

Decisions Concerning the Solution to be Implemented

The solutions that will ultimately be chosen are of course subject to negotiation, especially in cases where there are financial implications. Indeed, once money becomes an issue, the classical confrontation between the establishment's resources (or the "general interest"), for which the management is responsible, and the employees' interests, which are defended by their representatives, comes into play.

The situation is in fact somewhat different. Even if management and employee representatives are the main protagonists in these negotiations, the employees are more involved since they are directly concerned by the problem in question. To begin with, they have been involved in the problem analysis and the proposed solution, and they have been present at some ad hoc meetings. Likewise, they are also indirectly present through their participation in the report which presents the results of the ergonomic study. As a readily available written document, this report acts as a sort of extra spokesperson. Moreover, the data of the ergonomic analysis enrich the discussion with new, important elements, transforming the dynamics of negotiations. The first result of an ergonomic study is to attest to the difficulties inherent in the situation under debate. This consequently validates and legitimizes employees' claims which, in typical negotiations, management would have a tendency to underestimate and even refuse to acknowledge. Moreover, the nature and origins of the difficulties are precisely explained. This helps to furnish possible solutions and to move from an antagonistic management-union relationship to a common search for solutions in which the quality of life and efficiency of the establishment often go hand-in-hand.

The design and implementation of solutions also includes expanding the negotiation circle to encompass other parties and their requirements. As concerns working conditions, the solution to a given problem often requires that the team arbitrate between possibly conflicting criteria or partners with divergent interests. Negotiating might thus mean explaining to "tall" cooks that although they might not find it difficult to put purée trays on the highest cooling racks , "short" employees on the kitchen belt line do. It might mean holding a meeting for nurses from various departments and physiotherapists in which, after listing the planning and scheduling constraints of

the participants, they all agree to a procedure that ensures better communication of messages at an acceptable cost to those involved. Negotiating might also mean explaining to the doctor in charge of hygiene that if the belt line servers wore their masks, they would not be able, because of the noise of the line, to tell their colleagues about "problem" trays (e.g., no gravy) even though this "warning" is necessary if all the trays are to be correctly prepared on time.

In certain cases, some solutions are in the hands of the employees, namely in changes they make to their own behaviour. In one clinic, for example, nurses had problems storing garbage before its collection. This problem could be solved by using a pre-sort in each department, assuming of course that these new practices were accepted by the other nurses. In another department, an analysis of report taking between shifts showed that mistakes could be attributed to the time of the day when the instructions were passed on. The proposed solution was to modify slightly the time of day when the shifts changed (Bourne et al. 1992). The restrictive nature of new work modes could be lessened if they were chosen collectively by employees who were well informed of the reasons behind the changes. The traditional model is consequently called into question with respect to solutions themselves, since they are no longer the employer's sole responsibility. Rather, the employees must also participate in solution management through discussions with their representatives, the latter being more involved in the development of these solutions. It is reasonable to believe that in many cases, if the solutions had been designed by the managerial staff or administration, they would have been opposed by the employees, including those who conducted the study.

Towards a Permanent Practice of Participatory Ergonomics

In a certain number of favourable cases, negotiations occur to extend the ergonomics approach, used successfully for the first time for a particular problem, to other problems in working conditions in the establishment. The success of a first attempt is definitely a powerful argument and stimulant. It does not, however, ensure that the initial participants' support can be effortlessly extended to the full understanding and support of all the actors in the hospital. Internal communication is thus developed through posters, establishment and union newsletters, official presentations, etc. The intention is to explain the ergonomics approach, its advantages, success and possible applications to other questions, to the entire establishment. Nonetheless, there can be no extension without durability. Consequently, there are further negotiations to have the ergonomics approach recognized as a customary practice of the establishment, even though it might have originally been seen as a solitary experiment without any follow-up. This

institutionalization effort happens in two ways: the first concerns common problems in correcting existing situations; the second is more difficult and requires that lessons learned from the project be integrated into the general design approach of future changes. This presupposes the systematic insertion, into processes that are generally long and complex, of measures that will allow the logic of technical systems and the logic inherent in the work of employees to be compared and debated. After all, it is these employees who will have to accomplish their tasks with the help of or despite the constraints of these systems.

TRANSFORMING THE HOSPITAL ACTORS' PERCEPTIONS OF ONE ANOTHER

Through direct observation of the employees' work activities, the ergonomic approach teaches union delegates how to explore, in a more detailed and direct manner, complex work situations. Above and beyond the simple planning of rules and prescribed work that occupies most of the discussions between management and unions, the delegates discover important aspects of work activities that they had no idea existed. They realize that these aspects, previously poorly understood, are essential components in the employees' work activities and can be the object of union efforts. There is thus a widening of the union's field of action and a reversal in its perspective. Field contact in the departments and workshops, traditionally seen as a way to disseminate information and messages, becomes seen much more as a way to collect information and to listen and observe. It could be said that this constitutes a revival of the traditional but often abandoned union practice of surveying.

Similarly, the observation of work activity *in situ*, the analysis of work activity, the dissemination of analysis results and the collective discussion aimed at finding solutions based on these results create new opportunities for contact and interaction, thus allowing the employees to have a say and express their viewpoint. Employees react positively to this opportunity. They feel more important because their work is being studied, analyzed and therefore recognized. And, at the same time, the efforts of the union delegates are seen in a more interesting and positive light.

This aspect of the relationship between employees and union officials was at the heart of the project, and constituted a determining factor in the project's success. Although it might seem to be the simplest, this part of the negotiation process is nonetheless not that obvious, requiring substantial determination on the part of the project's initiators. Many failures are thus caused by a difficulty to "go into the field" and an implicit resistance to listen to employees. And yet, in most cases, it is precisely this aspect that is

the most appreciated by the teams conducting the project. Results of the final questionnaire indicate very positive responses to items such as: "we learned to see new things in the field" and "we had new contact with employees concerning their work". On the other hand, the response to the item "the employees were involved all through the study" was positive though less unanimously so.

As for hospital management, the changes were no less substantial. In one out of two cases, the delegates had difficulties with the administration; but in response to an evaluation conducted at the end of the project (Visier 1991), three-quarters of the teams declared that the exercise had in fact changed management's view of the CFDT union section. The managers themselves, interviewed later on during the evaluation, admitted to having been surprised by "a type of project that is not usually produced by unions" and "impressed by the amount of analysis and its technical quality". These remarks were as likely to be heard in establishments where union-management relationships were tense as they were in others. One union delegate said of the administration that "they were forced to admit that it worked".

The attitudes adopted by management with respect to these studies, their interest in this type of approach and the changes it could effect in social relationships were diverse. Although somewhat oversimplified, their positions can be categorized into three levels of readiness to integrate the union in participatory measures.

In the case of good relationships, managers saw the union delegates' ergonomic investment as an opening up of negotiation possibilities. For example, in a hospital where a department did a study of the night shift, the management admitted that "as far as audits of night work goes, the study was a first. We will now have to go and see for ourselves what's happening at night". The study was thus seen as a valid and legitimate basis for negotiation for all the actors concerned.

In the second case, recognizing the quality of the analytical work led the administration to revising its view of the union, saying that "the study's analysis is inescapable and teaches us a lot about the situation" and that "this shows that we have been unable to detect definite problems ourselves". However, faced with new union practices for which it was unprepared, the administration vacillated between recognizing the value of the analysis and seeing an added responsibility, and then proceeded to throw the ball to lower management levels.

The third case was fairly rare. Here, the administration could not avoid at least formally recognizing the analyses but refused de facto to accept propositions from its union partners. Instead, it tried to take over the study,

for example by setting up "work groups" that completely excluded union officials.

Overall, the hospital administrations were generally obliged, though to varying degrees, to take account of these approaches. Even when embarrassed by the conclusions arising from the studies, most of the managers were obliged to take the proposed solutions into consideration. And in the vast majority of cases, it was the possibility of producing reports based on mutual recognition that won out. By taking charge of the ergonomics approach, the union delegates possessed the elements that allowed them unequivocally to establish their participation in the development of solutions to working condition problems. As one of the delegates said: "the administration was finally obliged to take a different view of us."

THE KEYS TO AN ERGONOMICS APPROACH THAT MOBILIZES ACTORS

On the whole, the union's assimilation of the ergonomic approach developed in the Preuve par Cent programme turned out to be successful, despite sometimes meeting with serious problems. Still, the conditions behind this success and the methods of extending them on a long-term basis, in this field or in others, need to be defined.

One of the fundamental conditions that needs to be noted is technical in nature. The first characteristic of the change process is that it must entail a technical assimilation of tools that allow the demands of work activities to be clearly explained. Although participation is essential, it is not sufficient. Ensuring that actors understand the analytical framework and viewpoints of ergonomics is a *sine qua non* of success. Although this aspect of the problem obviously goes beyond the scope of the present article, its essential nature makes it worth noting. There are likewise other conditions that should be noted here. They concern the system of industrial and social relations in which the ergonomic approach, a strong mobilizer of employees, takes place and which is shaken to a greater or lesser extent by this approach.

This system of professional relations is partly determined by the existence of legally appointed authorities, the CHSCT being of particular importance in the case of the present article. Numerous other informal elements come into play however in the operation of this system. These elements have two main sources: first, the establishment's culture, namely its traditions, standards, and the reciprocal representations – harmonious or conflicting – of the functions, roles, rights and responsibilities of the various actors in the hospital; and second, national and local situations that are

influenced by union interests, changes in management over time, and so on.

These two categories of factors define a context that can be more or less favourable to the development of an ergonomics approach that mobilizes employees. How do these employees become involved and how can they be encouraged to contribute to the programme's success?

A VALUABLE INSTITUTIONAL LEVER: THE CHSCT

Although the CHSCT is not solely responsible for negotiations, it can take on a wide range of roles. Moreover, the first official agreement between the social partners concerning the study's principles, themes and methods is reached in the CHSCT. The CHSCT is also useful in choosing and directing the approach and bringing the largest possible number of actors into the project. CHSCT meetings can provide the opportunity to discuss the different stages of the study by:

- presenting a preliminary analysis of the data;
- building a collective representation;
- presenting hypotheses;
- discussing the next investigations (changing stages);
- encouraging participants to share information they possess.

This can also encourage CHSCT members to become more active by participating more in investigations (observations and surveys), transforming their meetings into "on site visits", starting up study groups, and so on.

Finally, the CHSCT is an appropriate place for presenting and negotiating solutions. Of course, official CHSCT meetings are not the only place where potential solutions are developed. Nonetheless, in many cases it provides a favourable setting for the exchange and negotiation of solutions that have been developed elsewhere. In addition to its potentially decisive impact on the analysis and improvement of the employees's working conditions, the CHSCT has several other strengths. It encourages actors to take on responsibilities and become more involved, since no one can ignore the rigorous analysis of a problem. The CHSCT likewise allows members of each group and department, who bring their colleagues' views of a problem, to meet face to face. Finally, it is also a place where those designing the solutions (equipment, material, organization of work and space) and those making the final decisions can meet with employee representatives who have their own comments to make about the projects. Despite the diversity of experiences (50% of the union members questioned considered that the CHSCT "worked better" after the Preuve par Cent

programme), the CHSCT would seem to be the place where "intra-negotiation" and "institutional negotiation" can come together.

THE DYNAMIC FORCES OF SITUATIONS

The existence of a body such as the CHSCT does not necessarily mean that a participatory ergonomic approach will be successfully initiated, completed, and then integrated into the routine practices of an establishment. Above and beyond the official duties conferred on the CHSCT, much depends on how much importance each of the social partners attaches to it, trying either to take full advantage of its potential or, on the contrary, to restrict its impact. For all this, a CHSCT that is concerned about its prerogatives is not necessarily aware of the usefulness of ergonomic analysis. Even if it is, this does not imply that all of the establishment's actors are just as aware of such a staunchly participatory approach or are in agreement about using it.

It is therefore generally necessary that the actors' views and positions evolve. This presupposes two conditions. Firstly, there must be a convincing, educational demonstration that helps actors recognize that the ergonomics approach in a valuable tool which permits a better and more efficient understanding of working condition problems. Secondly, the mobilization of actors must not be seen by some as a possible threat which might weaken their position in the establishment. Not everyone is won over from the beginning, and some are sceptical, hesitant or even strongly opposed. This is where past relationships, compartmentalization and territorial defence come in to play. It is worth noting moreover that resistance can be found at all levels, from employees, managers and administration to the union itself. It is thus necessary to explain, offer guarantees and give proof. Ensuring a common effort from all of the actors requires the sort of organizational leadership that the CHSCT might provide, share with or delegate to others. The CHSCT must therefore have the means and ability to convince the various actors and mobilize the establishment.

In order to mobilize all of the actors concerned by the development of better working conditions, establishments often need help, a catalyst that will provide an initial impulse and adequate assistance to overcome any obstacles encountered en route.

In the Preuve par Cent programme, the initial impetus came from outside, from the lunching of the project itself by the Fédération CFDT Santé-Sociaux. The need for catalysts soon became evident. They were provided by an assistance plan that was planned from the beginning and implemented by the national planning committee. In addition to ergonomic training spread over nine months, each of the local teams of union

delegates could, when necessary, seek advice from a two-person expert team composed of a regional union official and an ergonomist. Besides the technical advice concerning tools and analytical methods that was often required, these outside consultants were often asked more strategic questions concerning the handling of relations with administration, managers, technical services, certain employee groups or other unions in the establishment.

Other examples of outside incentives were seen a short time later (1992–1994), during the implementation of the Durieux Agreement, concluded in November 1991 by the national hospital unions and the ministère de la Santé (Ministry of Health). The agreement included the installation of a mechanism to institute, in a governmental framework, incentives that were largely inspired by the Preuve par Cent programme. It allowed hospitals to obtain financing from the Ministry for improvement of working conditions. The objectives and methodology of the contract were to be submitted to the CHSCT for consultation and to a regional commission of experts and Ministry representatives for approval. This procedure often led the members of the regional ministerial commissions to provide advice and assistance to the various actors in the hospitals so that they might successfully develop their projects. The Ministry consequently organized specific training – based on the methodology of working condition analysis – for their employees who, having until that point assumed essentially administrative and financial functions in the Ministry, were called upon to play a new role.

There were some important differences between the two projects. One was initiated and directed by the Fédération CFDT Santé-Sociaux, the other was defined as part of a national agreement between hospital unions and the Ministry, and organized and managed by Ministry services. Therefore, although the impact was significant in both cases, they cannot be compared in their entirety. However, despite these differences, which are still difficult to evaluate due to a lack of distance and information, one common element is worth noting: the efforts of the advisors in charge of the local implementation of these two projects had an important influence in putting the project into motion in the hospitals. Even more importantly, the assistance provided by each advisor – varying in nature and quantity depending on his or her position and occupation – had a large influence on the project's outcome with respect to short-term results and, even more so, long-term impact.

This point is worthy of further discussion. The diffusion of an ergonomics approach that mobilizes all actors and has a long-lasting effect requires a relatively permanent assistance mechanism that will not be reduced to a set of entirely financial and regulatory incentive measures. Institutional frameworks, such as CHSCTs with well-defined limits, are

obviously necessary. To be fully efficient, however, the framework must be animated by people with certain abilities. They must be directly involved in the changes and, because of their role as advisors to a whole sector and their substantial social backing, be in a good position to be heard. This lends credibility to and increases the pertinence of their efforts, due to their access to a large network of information and technical support.

The form of this assistance mechanism obviously depends upon a context that is particular to each sector and each country. This is likewise true for the social positions of the accompanying advisors. However, the Preuve par Cent programme and Durieux Agreement strongly suggest that the required expertise must integrate two elements (in the form of multidisciplinary, individual qualifications or in expert teams like the two-person teams discussed in this paper), that is, ergonomic tools for work activity analysis and a knowledge of how social relations function in the various sectors of the organizations studied.

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RÉSUMÉ

Appropriation syndicale de l'approche ergonomique et transformation des relations entre les acteurs sociaux

Une vaste opération d'introduction d'une démarche d'ergonomie participative dans le secteur hospitalier a été menée en France, en 1990-91, par la Fédération syndicale nationale CFDT des personnels du secteur de la santé. Dans une centaine d'établissements une formation-action, dite « La Preuve par Cent », a été mise en place avec la visée stratégique d'initier à l'approche ergonomique les militants CFDT membres des comités d'hygiène, de sécurité et des conditions de travail (CHSCT) (Gadbois et al. 1992, 1993). Dans chaque établissement trois ou quatre représentants du personnel, membres du CHSCT, ont suivi une formation de sept jours étalée sur neuf mois, en réalisant simultanément dans leur établissement, avec l'appui d'un ergonome-formateur, l'étude d'un problème de conditions de travail qu'ils avaient eux-mêmes choisi. Le principe de cette formation-action était de conjuguer étroitement l'initiation théorique aux outils de l'analyse ergonomique et l'acquisition de la maîtrise de ces outils dans le contexte réel du fonctionnement quotidien des hôpitaux. La conception du contenu de la formation et des modalités pédagogiques, l'organisation générale de l'opération et son accompagnement étaient assurés de concert par un comité scientifique pluridisciplinaire et un comité de pilotage réunissant ergonomes, chercheurs et formateurs fédéraux de la CFDT.

Cette opération a produit, en premier lieu, outre des améliorations significatives dans les situations de travail analysées, une réelle appropriation du point de vue ergonomique par les délégués syndicaux aux CHSCT, transformant leur approche des problèmes de conditions de travail. Mais au-delà, et à travers cette acquisition, s'est installée aussi toute une série de changements dans la façon dont les délégués assurent leur fonction et leur

mandat, leurs relations avec les salariés ainsi qu'avec les gestionnaires aux différents niveaux de l'établissement.

La nature de ces changements et leurs conditions d'apparition sont exposées ici, à partir de données recueillies tout au long de l'opération et à son issue, dans le cadre d'une démarche conjointe d'enquête et d'observation conjuguant divers moyens.

Nouvelles interactions entre les acteurs de l'hôpital

La Preuve par Cent a engendré, dans la plupart des sites, des rapports sociaux nouveaux qui peuvent être lus, en suivant les analyses de Rosanvallon (1988), comme des « processus d'intra-négociation » entre les salariés. Au face à face organisations syndicales/direction caractérisant la négociation institutionnelle classique, s'est substitué un processus de recherche collective d'un meilleur aménagement du travail, à définir à la suite d'une analyse objective, menée selon des méthodes dont la validité puisse être reconnue de tous. Il ne s'agit plus simplement d'une démarche sociale d'ajustement entre des partenaires ayant chacun en charge des intérêts propres, mais d'une démarche d'élaboration technique d'hypothèses d'aménagement du travail dans laquelle peuvent se conjuguer les compétences et les forces de chacun. De ce fait, l'avancée vers la réalisation des objectifs de transformation passe par une multitude d'inflexions à différents niveaux, auprès de divers responsables, selon des formes non instituées, au travers d'alliances nouvelles... Cet ensemble peut très bien intégrer des aspects plus formels (tels négociation syndicat-direction, jeu des instances représentatives du personnel), mais globalement il prend plutôt la forme d'une conduite du changement. Dans cette démarche la négociation est présente de bout en bout, s'élargissant tout à la fois quant à ses moments, ses objets, ses acteurs et ses formes.

Dès le départ, des négociations s'instaurent déjà sur les objectifs de l'action et sur l'extension du cercle de ceux qui contribueront à les fixer : comment recenser les problèmes et comment choisir des priorités ? qui en sera chargé ? débat en comité restreint d'experts ès fonction ou consultation plus ou moins large de tous les salariés ? Après quoi l'analyse même de la question retenue met en jeu une diversité d'acteurs et de formes de négociations. Entre autres, l'observation directe *in situ* de l'activité réelle de travail, base indispensable de l'étude ergonomique, comporte des enjeux impliquant négociation aussi bien avec les opérateurs qu'avec les cadres dont le champ de compétence ou la sphère d'autorité peut se trouver en jeu d'une manière ou d'une autre. À l'étape suivante, l'élaboration des solutions requiert une convergence de compétences variées dont la mise au service d'une opération impulsée par des représentants du personnel heurte

la répartition ordinaire des rôles entre concepteurs/décideurs et personnel d'exécution ; le choix d'une solution implique aussi parfois un dialogue entre groupes d'opérateurs aux intérêts divergents afin d'aboutir au meilleur compromis. Enfin, au terme de ces premières expérimentations, on peut voir s'opérer un passage à un autre ordre de négociation, qui porte sur la mise en place de procédures visant à étendre la démarche expérimentée au traitement d'autres problèmes de conditions de travail se posant par ailleurs dans l'établissement ou susceptibles d'apparaître ultérieurement.

Tansformation des perceptions des acteurs

À travers la pratique de l'observation ergonomique, les délégués syndicaux ont été amenés à découvrir dans les activités de travail de leurs mandants des aspects importants, leur échappant jusqu'alors, et qui représentent des composantes essentielles de l'expérience de travail des salariés, pouvant être l'objet d'un traitement syndical. C'est pour eux un retournement de perspective les amenant à adopter beaucoup plus une attitude d'écoute et d'observation des personnels des services et des ateliers. Inversement, à travers les observations du travail *in situ*, l'analyse des données recueillies, la restitution des résultats des analyses, les phases de réflexion collective pour élaborer des solutions, les salariés se sentent mieux valorisés dans leur pratique professionnelle, écoutés et entendus. Du même coup, les délégués syndicaux et les actions qu'ils mènent leur apparaissent sous un jour nouveau, intéressant et positif.

D'un autre côté, l'expérience a largement modifié l'image que les directions avaient de l'activité des délégués et des sections syndicales : surprises par « un type de production qui n'est pas habituelle de la part d'organisations syndicales », impressionnées et parfois prises au dépourvu par la qualité technique des analyses réalisées, les directions se sont dans l'ensemble trouvées conduites à les prendre en compte. Selon leur degré de consentement à l'intégration du syndicalisme dans des démarches participatives (allant d'une large acceptation à une fermeture larvée ou explicite) elles ont réagi de façon variable aux changements dans les rapports sociaux introduits par ces expériences. Mais dans la grande majorité des cas, c'est la possibilité de mettre en place des rapports basés sur une reconnaissance mutuelle qui l'a emporté ; les délégués syndicaux, en s'appropriant la démarche ergonomique, se sont imposés comme des partenaires obligés, qualifiés et reconnus comme tels sur les problèmes de conditions de travail.

Les clés d'une ergonomie mobilisatrice des acteurs

L'expérience d'appropriation syndicale de l'ergonomie développée dans le cadre de la Preuve par Cent fournit des éléments de réflexion quant aux

conditions de succès et aux moyens d'étendre et de pérenniser une telle dynamique.

L'existence d'une instance institutionnelle telle que le CHSCT est un levier important mais potentiel ; c'est en effet le lieu où peut s'opérer la jonction entre « intra-négociation » et « négociation institutionnelle » ; à condition toutefois que chacun des partenaires sociaux soit attaché à le faire fonctionner effectivement, et que ses membres soient des gens avertis quant à l'intérêt du recours à l'ergonomie. Il apparaît en effet un grand besoin de faire évoluer les représentations et les positions des acteurs. Cela requiert à la fois un travail « pédagogique » de démonstration de l'intérêt de la méthodologie ergonomique, ainsi qu'un ensemble de démarches d'explication et d'apport de garanties pour que la mobilisation de tous les acteurs, et spécialement des opérateurs concernés, ne soit pas ressentie par certains comme une menace pouvant porter atteinte à leur position dans l'établissement.

Pour réussir, les établissements ont très souvent besoin d'une aide, d'interventions catalysatrices apportant l'impulsion initiale et de conseils adéquats pour dépasser les blocages rencontrés tout au long du parcours. Dans le cas de la Preuve par Cent, le dispositif d'accompagnement mis en place par le comité de pilotage national a largement répondu à ce besoin. L'expérience des actions lancées par la suite sous l'égide du ministère de la Santé en apporte confirmation : la diffusion d'une démarche ergonomique mobilisatrice de l'ensemble des acteurs nécessite l'existence d'un dispositif d'aide qui ne se limite pas à des mesures incitatives purement réglementaires ou financières. Les cadres institutionnels doivent être dynamisés par des agents de changements, porteurs de compétences ergonomiques et d'une connaissance des relations sociales dans le secteur professionnel considéré, et intervenant dans le cadre d'un dispositif bénéficiant d'une assise sociale forte.