INSTITUTIONAL CHANGE AS AN INTERACTIVE PROCESS: 
THE MODERNIZATION OF THE FRENCH CANCER CENTERS

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Like all human endeavors, sociological theories do not come into being on a *tabula rasa*, but are tributary to the intellectual setting and climate in which they originate. It therefore comes as no surprise if neo-institutional theory in organizational analysis shares some of the basic assumptions of structural contingency theory (Burns and Stalker 1961; Woodward 1965; Lawrence and Lorsch 1967; Perrow 1967; Hage and Aiken 1970) and its intellectual heir, population ecology (Hannan and Freeman 1977, 1984)\(^1\), which was the dominant paradigm in organization theory by the time it received its first formulation in the two seminal articles by Meyer and Rowan (1977) and by DiMaggio and Powell (1983).

This is not to underestimate or downplay the radical differences which separate neo-institutionalism from structural contingency theory: while the latter emphasized the technical and economic environment and its demands, and considers the efficiency constraint as the main adaptive force for organizations, the latter underscores the importance of the symbolic and cultural environments of organizations, and introduces the constraint of legitimacy as the main adaptive force of organizations. Bringing sociology and society (Friedland and Alford 1991) back into the study of organizations, albeit on a different level, it strongly challenged the strictly utilitarian, not to say technicist orientation of contingency theory and opened up an entirely new perspective on organizational responses to societal change.

This difference, however, crucial as it may be, should not have us forget some important commonalities shared by both approaches or paradigms. Three of these, which in fact are acknowledged if not actually claimed by DiMaggio and Powell’s introduction to their 1991 reader (DiMaggio and Powell 1991, p.13), are of particular importance here. First, there was the inter-organizational focus, studying primarily populations of organizations treated as a field, instead of looking at the internal processes of singular organizations. The second was the

\(^1\) We are aware that this is of course a considerable and contestable simplification, especially in the light of later developments of the population ecology of organizations (see among others Baum and Singh 1994, 1996). It can be said, however, that some of the themes of this paradigm consist of a radicalization of the original argument of contingency theory (Friedberg 1997, chapter 3).
emphasis on organizational form: the explicandum is the formal structure of organizations and its transformation, instead of action in organizations. And last, but not least, there was the understanding of organizational change as an adaptive process, organizations obeying, and conforming to, changing environmental conditions and forces.

All three added up to giving neo-institutional theory an actor-less perspective on organizations and institutional processes. Institutional and organizational change was seen as driven by impersonal dynamics of different kinds the emergence and existence of which were observed and used as explaining variables, but not really explained for themselves. Human agency all but disappeared, and was replaced by impersonal forces characteristic of society, institutional sectors and organizational fields. And organizations were seen as legitimacy-seeking entities which had no way of influencing what was legitimate: they had no potential for structuring their institutional environment, but could only adapt to whatever happened to be or become its message.

This initial bias of neo-institutional theory has rapidly attracted considerable criticism and has been challenged in almost all its dimensions. As early as 1991, Oliver, in a widely quoted and influential article, has argued that “institutional theory has tended to de-emphasize both the ability of organizations to dominate or defy external demands and the usefulness to organizations of pursuing these types of strategies” (Oliver 1991, p. 150) and then discusses different strategies which organizations can follow in order to resist against institutional pressures or to conform. Ranging from acquisition and compromise to concealment, manipulation and open defiance, these strategies have in common to show at least two things. For one, they point to the segmentation, multiplicity and basic ambiguity of institutional environments, which open up possibilities of misperception or misinterpretation, and creates opportunities for choice for downplaying some or for playing one against the other, or even decoupling internal processes from official response to institutional pressures (Brunsson 1989). Second, they therefore underscore that organizations retain some leeway because “legal ambiguity” (Edelman 1992) allows them to “preserve at least some managerial discretion” (Ibid, p. 1557) when complying to managerial demands, or because they can choose among competing demands of their institutional environment, paying only lip-service to them or even trying to

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2 In quite a provocative way, Barnett and Caroll (1995) go even further, since they put contingency theory, resource dependence theory, neo-institutional theory and transaction cost economics into the same “adaptational camp” (p. 218)

3 Which, incidentally, it also shares with contingency theory (Crozier and Friedberg 1981, chapter 4)
bargain their way out of constraint (Slack and Hinings 1994; Suchman 1995; Beckert 1999; Scott 2001).\(^4\)

In the same vein, the predominance of the symbolic and institutional environment has been challenged. Some scholars have pointed to the fundamental complementarities of both market and institutional forces (Singh, Tucker and Meinhard 1991; Beckert 1999). Whereas authors like Kraatz and Zajac (1995), Hirsch (1997), Hirsch and Lounsbury (1997) and D’Aunno, Succi and Alexander (2000), have underscored the tension between the two, claiming (and brilliantly demonstrating) that organizations can (and do) choose to respond to changes in the technical environment even if this means going against the dominant myths, narratives and patterns of their institutional environment (Kraatz and Zajac 1995).

By the same token, the lack of human agency in neo-institutional theory, its failure to take into account interest-driven behavior and the “generative capacity of actors” (Hirsch and Lounsbury 1997; Friedberg 1998), its tendency to reify institutions and to view them “as somehow distinct from those who comply and more importantly, from the act of compliance itself” (Barley and Tolbert 1997, p. 95) have been critically underscored. Early on, DiMaggio (1988), DiMaggio and Powell (1991), Powell (1991), and Scott (1993) have acknowledged this weakness and have searched or called for remedies. Kondra and Hinings (1998) and Fligstein (2001) have for their part proposed frameworks which put human agency in the center of analysis by interpreting institutional change as the product of crisis in an organizational field brought about by the “social skills” (Fligstein 2001) of a new group of actors (Fligstein’s “challengers” and Kondra and Hinings’s “renegades”) acting as change-entrepreneurs.

Our understanding of institutional change has been greatly advanced by all these contributions. The initial bias of institutional theory towards an actor-less evolutionary view of institutional change considered as the result of impersonal exogenous forces has been made more complex and realistic. A good deal of strategic choice has been given back to organizations which have become actors of their (only partial) compliance to institutional demands (Oliver 1991; Beckert 1999). And frameworks have been proposed which consider institutional change

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\(^4\) Clemens and Cook (1999) use similar arguments to improve (and to allow for) the analysis of durability and change in political institutions: an appreciation of the “multiplicity and heterogeneity of the institutions” (p. 443) is crucial to understand why institutional change is possible. One sometimes has the impression to read re-editions of arguments made around role-theory: in order to re-introduce some flexibility into role-theory and account for change in behavior which orthodox Parsonian role-theory was unable to explain, it was pointed out that role-occupants were able to gain some leeway from their respective role because of the heterogeneity, multiplicity and potential divergence of role-expectations. *Mutatis mutandis* the same argument is being made now in relation to pressures (expectations) of the institutional (and or technical) environment.
as the very product of human agency and skills, providing both an understanding of where institutional change comes from and how it is implemented.

In our contribution, we would like to take this argument further. The case which we are about to report about the successful modernization of the French Cancer Centers and their reinstatement as the leaders in their field indeed illustrates the importance of agency, i.e., of interest-driven, purposive action, for understanding institutional change, as well as the leeway which organizations have in dealing with new environmental pressures be they technical or institutional by nature. But it does more. It shows the interactive nature of institutional change. The word interactive refers here to at least two elements of the process which to our knowledge have received only scant attention in the literature so far. On the one hand, it points to the proactive nature of organizations, going out and succeeding in (re)structuring their institutional (as well as technical) environment. On the other hand, it would like to emphasize the fact that environmental pressures and the response to them can not be understood separately in this case. Just as much as human choice relies on preferences which are themselves a product of the process of choice, the very ideas put forward by our change-entrepreneurs took shape in interaction with environmental pressures which they also contributed to mould. The process is an interactive one, environmental pressures and organizational responses being simultaneously resource and constraint for one another, both structured by, and structuring for, each other.

We shall proceed in three steps. In the following section, we shall give a short descriptive account of the process of reform which we studied. We shall then go on to “model” the main characteristics of the change process. In our concluding section, we shall then stress the distinctive features in this model and discuss them in the light of the relevant literature.

I. FRENCH CANCER CENTERS: A CASE OF ORGANIZATIONAL CHANGE

1. A prestigious organization under increasing constraints

In the 1920s, some physicians with political and financial support from the State managed to create the French Cancer Centers. These specialized medical establishments were set up following four major principles. First, these centers

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5 For a detailed analysis of this reform process, which can only be sketched out in this article, confer to P. Castel, « Normaliser les pratiques, organiser les médecins. La qualité comme stratégie de changement. Le cas des Centres de Lutte Contre le Cancer », PhD dissertation, Sciences Po Paris, 2001

6 For more details on anti-cancer policy in France at the beginning of the 20th century, see Pinell (2002).
should manage research activities and treat patients at the same time. Second, each medical specialty was to participate in the decision process related to a patient’s treatment strategy, a process labeled “multi-disciplinary” by the Centers in the second half of the 20th century. Third, only physicians could be appointed director of these centers. And last but not least, the Cancer Centers’ founders aimed at, and succeeded in, convincing the authorities to limit to 20 the number of centers created. They considered this restriction was a way to draw the best radiotherapist into the Centers and thus foster radiotherapy as a new kind of treatment besides surgery.

From the 1920s to the 1970s, these Cancer Centers were the main organizations taking care of cancer patients in France. The National Federation of Cancer Centers, an employers’ association whose board was composed of the 20 directors, was created in 1964, in charge of lobbying authorities and deal with collective bargaining issues common to the centers. Over the whole period, the 20 cancer centers enjoyed a quasi-monopoly over cancer care in their respective regions: there was hardly any specialized equipment for cancer-treatment elsewhere, and only very few health organizations claimed to participate in the treatment of patients. Thus, in 1965, the French government logically entrusted the Centers with organizing consultations for patients in other hospitals of their area. Until 1972 as well, the physicians appointed to the National Commission in charge of helping the government to define a national cancer policy, were exclusively drawn from the Cancer Centers.

But from then on, things changed. Cancer Centers have been facing an increasing competition and their legitimacy has been challenged in multiple ways.

**Facing increasing competition**

The evolution of the French healthcare system as a whole explains part of the increase in competition. On the one hand, since the 1960s, physicians have become more and more specialized, their number growing from 30,000 in 1975 to 80,000 in 1985. On the other hand, the French government has increased its financial support to the development of hospital infrastructure. For instance, French hospitals gained 160,000 beds between 1962 and 1976.

However, this increase is also due to specific changes in the field of cancer care. First of all, other hospitals were allowed to acquire radiotherapy equipment. By the end of the 1970s, Cancer Centers possessed only 22 percent of the French radiotherapy equipment, but still 40 percent of the linear accelerators (the most powerful machines, able to treat all kinds of cancer diseases). By the 1990s, they still possessed 23 percent of the French radiotherapy equipment, but only 23 percent of the linear accelerators.
Then major improvements in cancer treatments have lead an increasing number of physicians to get involved in cancer care. Cancer is no more an incurable disease, of interest to scientists only. Surgery and radiotherapy have become more efficient and less mutilating. But the greatest technological change has been the improvement of medical treatments with the emergence of chemotherapies (Bud 1978; Löwy 1996), allowing new categories of physicians, which were not specialized in radiotherapy or surgery, to enter the field of cancer care. These changes turned out to be all the more dramatic for Cancer Centers as they depend for their production on the other actors of the health-care field (hospitals, doctors, etc) who decide on the orientation of the patients they receive prior to the diagnosis of cancer.

As a consequence, the number of new cancer patients treated in the Cancer Centers stagnated during the 1980s whereas the total number of cancers was growing in France (see table 1): in other words, the absolute and relative market share of cancer centers declined sharply. Furthermore, the number of hospitals relying on Cancer Centers’ physicians for cancer consultations stagnated around 150 during the 1980s.

**Table 1: relative “market-share” of Cancer Centers**

<table>
<thead>
<tr>
<th></th>
<th>1981</th>
<th>1985</th>
<th>1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of new cancers treated in the Cancer Centers</td>
<td>25.210</td>
<td>26.216</td>
<td>24.875</td>
</tr>
<tr>
<td>Number of new cancers in France</td>
<td>170.000</td>
<td>187.000</td>
<td>211.000</td>
</tr>
<tr>
<td>Percentage of new cancers treated by the Cancer Centers</td>
<td>14,7%</td>
<td>13,9%</td>
<td>11,8%</td>
</tr>
</tbody>
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7 This all the more so as contrary to the United States, oncologists are not the only physicians allowed to prescribe chemotherapy. Every physician who passes the required exam —not subject to a *numerus clausus*— is allowed to do so.

8 These data are rough estimates based on the Enquête Permanente Cancer (Permanent Cancer Survey) which has been recording the number of cancers treated in the French Cancer Centers from 1943 onwards (Menoret 2002). Nonetheless, they are congruent with the results of a (much criticized) study conducted by the French Ministry of Health between 1985 and 1987 and showing that French Cancer Centers treated only about 11% of cancer patients (IGAS 1994)

9 Sources: Remontet et al. (2003).
Challenges to legitimacy

The changing task environment and growing market pressures was not the only challenge Cancer Centers had to face. Their legitimacy itself began to wane.

First, some healthcare organizations promoted an alternative medical model that challenged the Cancer Centers’ model. They were organized around physicians specialized in the treatment of specific organs (gynecologists, urologists, gastro-enterologists, etc.), cancer being only one among many other pathologies they treated, whereas Cancer Centers claimed that only physicians specialized in the knowledge of the pathology as a whole (oncologists) were able to propose the appropriate treatments. One type of health-care organization created after the Cancer Centers was particularly threatening to them: the University Hospital. In 1958, the Hospital Reform Act was passed to modernize the French hospital system by linking regional public hospitals to university medical schools (Jamous and Petoille, 1970). Called University Hospitals, they have become the keystone of the French healthcare system, since they are expected to offer the best and most advanced treatments, to train physicians and to lead medical research for all pathologies. From the 1980s on, they began to claim that Cancer Centers were no more useful since they had the same missions on cancer and argued that their physicians, specialized in organ treatments and at the forefront of clinical research, were more qualified to treat (and cure) cancer.

The second challenge was related to increasing critics issued by the regulative authorities. As early as 1968, the French Ministry of Health worked on a project to integrate the Cancer Centers into the public hospitals. The National Federation stepped in and was able to stop the project. Twelve years later, in 1982, the new socialist government initiated a national debate about the organization of ‘the fight against cancer’ and the role of the 20 French Cancer Centers, and the administration again attempted to merge one of the smallest Cancer Centers into the University Hospital of its region. Once again, the Centers and their lobbying organization, succeeded in stopping these projects. Later on, between 1988 and 1998, no less than three public reports published raised the question of maintaining these atypical hospitals: they were costly and did not show evidence of their added value whereas more and more new health organizations participated in the fight against cancer.

2. Time for reform

At the beginning of the 1990s, a small group of five physicians belonging to different Cancer Centers particularly exposed to competitive pressures in their respective local environment, decided to join forces in view of initiating an
economic and medical reform at the level of the Federation of the Cancer Centers. These physicians, who had been newly nominated as director of their center (between 1988 and 1991), posited that Cancer Centers were to change or disappear.

**The emergence of a group of reformers**

Four of the five directors did actually play an active role in the design and implementation of the reform\(^{11}\). These four physicians shared a number of distinctive features

First, their medical specialization contrasted with those of the previous directors of the center in which they were nominated. Three of them were the first medical oncologists to be nominated at the head of a Cancer Center while the fourth was the first radiotherapist after three surgeons and a pathologist: in other words, they shared a disciplinary interest in the face of surgery as another, still dominant treatment technique.

Second, these reformers had been actively involved in research activities, a fact which strongly contrasted with other directors of the National Federation’s board. They had taken part in the first major successes of chemotherapy as a treatment of cancers in hematology and pediatric oncology. Two of them, who later on were to assume the leadership of federal scientific projects, had already published articles in the most famous medical journals, while a third had created the first “labeled research unit” in a Cancer Center\(^ {12}\).

In short, the group of reformers shared common interests, had a similar career path, a similar vision of where cancer cure was headed and a similar experience of crisis in the face of mounting outside pressures. They set out to “awaken” the Federation, i.e. their fellow directors, to the dangers of inaction, and proposed a reform-program which was designed to regain past influence of the Cancer Centers and to bring them again to the forefront of the fight against cancer.

Their reform ideas were organized around three guiding principles. First, they held the view that Cancer Centers should be more than well-managed healthcare organizations, they had to become scientific leaders, if they were to survive. In a

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\(^{11}\) The fifth one was not an oncologist and had begun his career in public hospitals. As a consequence, although he backed up the other directors, he was less actively involved in the reform-process.

\(^{12}\) In France, two main public organizations fund medical and scientific laboratories: the French Institute of Health and Medical Research (INSERM) and the French National Center for Scientific Research (CNRS). Only labeled units may benefit from such funding.
competitive environment, they thought, research and teaching activities should allow the Centers to make a difference with other organizations: this was congruent with their own professional orientation, and would uphold their claim for leadership in the French healthcare system, allowing them to act as a support for other organizations rather than competing with them. As one of them, standing in for directorship, put it:

“Our center (...) has a limited size and cannot pretend taking care of more than 20% of cancer patients in our region. It seems to be a weakness but, in fact, it is not: it is a specific feature of Cancer Centers which are not intended to enjoy a monopoly in cancer care but are commissioned to be the driving force in the promotion of techniques, prevention and research in their region. (...) To be the driving force does not depend on the size of our center but on our capacity to set the example.” Discourse of a reformer in front of the Board of a Cancer Center, June 1989

The second idea behind their reform drive was that, in order to loosen financial constraints imposed by the regulatory authorities, Cancer Centers should consider them as potential allies and signal cooperation. They were convinced that, since their lobbying capacities were low compared to those of other hospitals which were more numerous and more important financially, as much compliance as feasible with the demands and expectations of the regulatory authorities was their best strategy.

“One way to achieve our ends will be medical and administrative transparency which will demonstrate the limits of our room for manoeuvre. Of course, these added funds will be allocated on a contractual basis and thus regularly called into question. (...) What is important is to assert that we, as benefiting by public funding, accept the constraints of public funds’ management.” (emphasis in the text) Discourse of the reformers in front of the Federation board, November 1992

And third, they believed that the Federation was the relevant level to drive the reform. Two main reasons explained this position. First, unified responses to environmental threats and demands were conceived to be a way for overcoming the weak position which they at that time considered the Cancer Centers to be in. Second, designing the reform at the federal level was a way to mutualize financial and human resources, and thus to develop significant scientific projects.

An incremental reform

The reformers did not succeed at once in convincing their colleagues of the other Cancer Centers of the necessity and the urgency of a reform, nor did they devise and propose the Board a major plan for action to be implemented from scratch. The design of the reform and its implementation have been progressive and incremental all through the 1990’s. All through the period they nevertheless

13 This meant a major break away from the traditional autonomy of Cancer Centers, since up to the reform, the Federation of Cancer Centers had not been a structure for mutualization, but only a lobbying body as well as an employers organization concerned with collective bargaining for the Centers.
did assume the role of change-entrepreneurs, pushing the reform drive while adjusting their views to unfolding events, to progressively emerging demands of the environment and to the resources which could be mobilized as well as to the necessity of popularizing the reform ideas among their fellow directors and physicians, i.e. make them acceptable to what could be considered the collective identity of Cancer Centers and their institutional heritage. Four events of particular significance trace the progress of the reform agenda.

In 1991, the reformers as a group for the first time successfully attempted to initiate some change. They succeeded in convincing their colleagues of the board of directors that the National Federation be, for the first time, the sponsor of a clinical trial they wished to conduct. At the end of that same year, they organized a seminar during which they convinced the board to accept a considerable strengthening of the federal level in relation to the individual Centers: the Federation became the main public sponsor of clinical trials in their field in France, and was authorized to recruit a new executive Director whose mission would be to help Cancer Centers improve the management of their human resources.

In 1992, they reiterated their efforts much more explicitly in another board meeting in the course of which they openly criticized the functioning of the Cancer Centers as well as the way in which the Federation was run, and commissioned a member of their group to officially run against the federal President in office, who was a surgeon and who had been at the head of the Federation for 20 years. In their proposal, they mentioned three lines of action, but did not substantiate them any further: 1) the definition of medical guidelines for treatment; 2) the development of research activities by the Centers as well as the Federation; 3) the re-negotiation of professional statutes for non-medical staff (in order to cut down wage costs and introduce a variable share in wages). But mainly they tried to convince the board that the time had come to act and that they had the recipe for the necessary reform.

They used two lines of arguments. The first one summoned the recent transformation of the medical and legal environment of Cancer Centers. They underlined the foreseeable impact of the 1991 law which aimed at reorganizing the French healthcare system on the regional level by fostering (or even forcing) cooperation between hospitals. They mentioned also the start of a public inquiry on the usefulness of Cancer Centers. And they emphasized the loss of their monopoly in cancer care. To face up to these transformations, they pleaded in favor of a quick change, as a “laissez-faire” strategy would only bring about coercive intervention from the regulatory authorities.

“This is an emergency because the current public inquiry has nothing to do (contrary to what you say) with what you have known before. The previous context (which, by the way, you have well controlled) was an ideological one against Cancer Centers. Current stakes are economic and organizational. It is required that we justify the place of Cancer Centers in the healthcare system. We have to bring unambiguous answers to Ministries
and to other funding organizations which ask this question very directly and clearly. We’d better produce this answer ourselves before some other people, from outside the Cancer Centers, do it for us. This is an emergency (…) because new regional organization plans lead to the redefinition of the role and missions of Cancer Centers in the healthcare system, in an healthcare environment which has much changed since 1945. (…) We must accept this evolution, and even anticipate it, and above all not submit to it. Let us recall, dear colleagues, that transfusion centers thought they were enjoying a monopoly which would guarantee them a peaceful future. (…) Last, if we do not change, we are supporters of corporatism… and we will soon be considered as one of the oldest and most rigid hospitals. (…) What is at stake is a challenge; we have to be able to act at a moment when national and regional healthcare scenery is moving quickly.” (emphasis added) Discourse of the reformers in front of the Federation board, November 1992

While pushing for drastic reform along the lines which they sketched out, the group argued that their reform was in line with, and therefore able to protect and to enhance, the founding project of Cancer Centers which directors and physicians are very proud of. They underlined that the two distinctive organizational features of Cancer Centers (their specialization around the pathology and their organization based on the participation of every medical specialty in the decision process related to a patient’s treatment strategy - also called multi-disciplinarity), were seriously threatened by other medical approaches. They also recalled that the initial missions of Cancer Centers were not only to treat patients but also to have an influence on general cancer care : their proposal to produce medical guidelines and to develop research were presented as a way to regain scientific legitimacy and leadership.

“We do not reject the fundamental historical public enactment of our creation, which is (we do all agree with it) a strong asset, but we think that if we are holder of a public health mission, this mission has changed since our creation. (…) Our assets are competencies, multi-disciplinarity, flexibility, capacity of experimentation and critical mass to allow good research. (…) We do not mean that Cancer Centers have to put aside their mission of treatment in favor of exclusive research activities. We mean that Cancer Centers should balance it with evaluation of standards of treatment and therapeutic innovations which justify our presence in our healthcare system. (…) We have to take the lead in our regions of the defense of a pathology-centered model against the organ-centered one. (…) How can we come back to the founding project of Cancer Centers? We mean the very driving and leading role in cancer care. (…) We have got, Mr President, dear Colleagues, a new vision of the role of the Federation (…).” Discourse of the reformers in front of the Federation board, November 1992 (Emphasis added)

The reception of this reform program by the fellow-directors was ambiguous. On the one hand, they endorsed the general orientations proposed by the reformers and entrusted them with the implementation of the sub-projects mentioned earlier. They did not, however, hand the reformers full power. First, they re-elected the current President, the reformers becoming only Vice-Presidents in charge of the projects. Second, they did not agree with an increase

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14 Cancer Centers are proud of their history as pioneers in the fight against cancer. As a symbol, each Cancer Center is named after one of the founders. And the multi-disciplinary tradition of cancer care is cherished and valued.
of their center’s subscription to the National Federation. But the overall result was an infusion of the spirit of reform inside the cancer centers as is illustrated by the succession of documents and initiatives coming forth from the Federation whose resources begin a steady increase from then on\textsuperscript{15}.

At the beginning of 1993, a document which resumed the axes of the reformers was elaborated and adopted by the board. In particular, the will and necessity to increase the scientific activities in Cancer Centers was put forward and, for the first time, reformers came to give a more precise definition of the “guidelines project” by referring to science-based medicine, in reference to an emergent trend in the American medical profession which called for the development of guidelines based on the current state of scientific knowledge (Institute of Medicine 1990; Evidence-Based Medicine Group 1992):

“The list of diagnostic and treatment procedures which, in oncology, are considered and evaluated as standard, relative to the current state of scientific knowledge.” (emphasis added) Internal document, February 1993

As a consequence, they organized in May of the same year a trip to the United States where they met with actors of two prestigious institutions in oncology: the MD Anderson Cancer Institute and the National Cancer Institute. The reactions of their American counterparts proved to them the relevance and the appropriateness of their project as well as the ambitious scope of it since no national project had been initiated so far\textsuperscript{16}. But they also came away with a new idea for them, as they became convinced that a federal team of methodologists was needed in order to coordinate the work of Cancer Centers’ physicians during the elaboration of the guidelines and to make sure that the guidelines were based on an objective evaluation of the literature and not only on the opinions and experience of some medical leaders. In order to recruit this team, they obtained from the Board an exceptional subscription which was the first step in the strengthening of the federal level in the organizational field, which had not been foreseen from the start.

In 1994, a new project was initiated. It consisted in promoting the accreditation approach in the centers. This was of course a direct response to the public inquiry which had just been published and which challenged the Cancer Centers to prove their commitment toward quality of care. But this response was also an anticipation, since the Ministry of Health would institute accreditation for French hospitals only two years later, in 1996.

\textsuperscript{15} This increase is due particularly to partnerships with the Ministry of Health (for the medical guidelines project), the National League Against Cancer (which is the main French patient organization in oncology) and the pharmaceutical industry (in relation to clinical trials).

\textsuperscript{16} For instance, the National Comprehensive Cancer Center Network in the United States would begin to elaborate such guidelines in 1995.
In 1997, the once candidate of the reformers became President after the first successes of the projects (cf. infra). This brought about a 33% increase of Cancer Centers’ subscription (see table 2) and the beginning of the renegotiations on the collective agreement for non-medical staff. More importantly, it gave a general impetus to reform in the Cancer Centers and resulted in the acceleration of reform efforts on all levels. The New vision of the role of Cancer centers in the French Healthcare system had received official legitimacy.

3. Things have changed

With the beginning of the new century, things have changed considerably. The structure and functioning of the organizational field of cancer centers has been centralized and somewhat unified, their production has evolved towards diversification and they have gained a new legitimacy.

   A more centralized and unified organizational field

Traditionally, the federation was not a center of power in the organizational field formed by the Cancer Centers: it was an employers’ organization with weak prerogatives, and a representative body for the common interests of the twenty Cancer Centers. Power rested in the board of directors which functioned on a consensual basis, and while there were of course differences in the weight of individual directors, the board of directors was a collective body where the voice of each director counted. In short, the organizational model looked more like a confederation of highly autonomous centers than like a unified organization.

The situation today is quite different. the end of the 1990s, the National Federation has grown bigger, stronger and more influent: 1) it has gained a significant increase in resources; 2) its legitimacy to initiate and lead collective projects for the 20 Cancer Centers has been acknowledged and enacted, and 3) strategic orientations of Cancer Centers are congruent with the federal reform.

The first and most evident indicator of this change is of course the evolution of the federation’s budget and wage-costs. As is shown in table 2 below, both have steadily increased during the past decade, with a sharp increase of the federation’s budget in 1999: the number of employees and the budget had been multiplied respectively by more than 5 (from 9 to more than 50 employees) and by nearly 10 (from 0,73M€ to 7,12M€). Even though a new request for another increase has lately been rejected, the overall growth of resources is impressive and denotes the new importance of this organizational level.
Table 2: Evolution of the budget of the Federation

![Graph showing Evolution of the budget of the Federation](graphic)

Cause and result of this budgetary evolution, the federal level has become a center of initiative for new activities of its own, in the field of research and clinical trials and in the initiation and steering of the guidelines program as well as of the accreditation of the Cancer Centers. Indeed, the impetus for change is still in progress. Three new projects have been initiated since 1999. First, a new collective agreement for the physicians of the Cancer Centers has been negotiated and approved in 2001 by the Federation. Second, a body for multidisciplinary training (for physicians and nurses from inside and outside Cancer Centers) has been created. Third, documents to inform patients on the possible treatments have begun to be published. These innovations are of great significance. They show that the Cancer Centers’ directors are more and more willing to let the Federation become active in fields which until then they had considered of their sole strategic responsibility: the contractual relations between their Center and their physicians (their core human resource), the relations between their Center and their patients, and the education and training of their employees as well as their potential providers.

Furthermore, the Federation is more influential at the local level. Indeed, Cancer Centers’ strategic plans are very similar to each other and congruent with the federal reform. Each strategic plan makes it clear that the Cancer Center intends henceforth to be a center for assistance and expertise for other health-organizations of its area rather than their competitor. And the development of research activities and the improvement of the quality of care through treatment protocols and patients’ participation are identified as priorities in every Cancer Center, even in the centers which had been focused until then on care:

“The weakness of our center lied in the fact that we had functioned so far like a clinic, which took care of patients, but which did not have much developed teaching and
research activities. ... A change has been introduced by our director: we have developed these activities. Our center devotes a bigger part of our budget to them.” Interview with an administrative director of a Cancer Center

We do not want to overstate this organizational change. Even if their internal functioning has certainly become more alike than before and even if the new collective agreements have curtailed their leeway in the management of their human resources, individual Cancer Centers still enjoy high organizational autonomy. More importantly, the growing importance of the federal level has become a subject of growing criticism, and the latest moves by the federal executive to strengthen even more the center of the Federation have met with fierce resistance by some of the Centers. However, the very existence of this criticism, along with the range of new activities developed by the federal level bear witness that the power balance, although not completely tipped yet, has shifted quite clearly in favor of the center, i.e. the Federation.

**A more diversified output**

A second dimension of the transformation of the situation is the diversification which the production of Cancer Centers has undergone since the beginning of the 1990s (see table 3 below).

**Table 3: Main sponsors of clinical research in France**

<table>
<thead>
<tr>
<th></th>
<th>1995\textsuperscript{17}</th>
<th>1999-2002\textsuperscript{18}</th>
</tr>
</thead>
<tbody>
<tr>
<td>University hospitals</td>
<td>16%</td>
<td>11%</td>
</tr>
<tr>
<td>Pharmaceutical industry</td>
<td>70%</td>
<td>49%</td>
</tr>
<tr>
<td>Medical associations</td>
<td>6.5%</td>
<td>19%</td>
</tr>
<tr>
<td>Others (Cancer Centers included)</td>
<td>7.5%</td>
<td>-</td>
</tr>
<tr>
<td>Cancer Centers</td>
<td>-</td>
<td>20%</td>
</tr>
</tbody>
</table>

While continuing to provide cancer care, their initial core-business, Cancer Centers have invested more and more in research activities. At the beginning of the 1990s, 4 centers hosted less than 10 labeled units of fundamental research. In 2000, 40 units were operating in 11 centers. As a consequence, their share in clinical research has also sharply increased. About 10% of the Cancer Centers’

\textsuperscript{17} Source: Oudin (1998).

\textsuperscript{18} Source: Commission d’Orientation sur le Cancer, 2002.
patients were included in clinical trials in 2000\textsuperscript{19}. Table 3 clearly indicates that Cancer Centers have increased their relative “market-share” concerning sponsorship of clinical trials\textsuperscript{20}.

Simultaneously, Cancer Centers have become increasingly involved in the production of medical guidelines, both at the national and regional levels. On the national scale, the Federation of Cancer Centers has been leading an exhaustive collection and review of the existing scientific literature (clinical trials, meta-analyses, etc.). Over time, other institutions (mainly University hospitals and medical associations\textsuperscript{21}) joined in, but the Federation still holds the leadership. Most types of cancer have been reviewed since the project was started. Yet research goes on, as more than 2000 papers presenting the results of cancer clinical trials are published each year and have to be reviewed and analyzed.

This activity has been highly successful both on the national and the European level. Of the 75 guidelines in oncology published in France between 1993 and 2002, 60 were issued by the Federation of Cancer Centers. The success is such that its influence now reaches beyond the French borders towards the European level, as the guidelines it has produced have recently been published in international top reviews such as the British Journal of Cancer.

The same can be said for the regional level. Cancer Centers’ physicians\textsuperscript{22} play a leading part in the creation of cooperative networks for the elaboration and implementation of regional treatment protocols adapted to the characteristics and resources of the local healthcare system in order to be relevant and handy for everyday practice. This entails two activities. First, it means initiating and monitoring the discussion process at the regional level through which federal review monographs are in fact transformed into decision algorithms and into specific recommendations of one among several scientifically appropriate treatments. The actual implementation of these recommendations is then monitored through the organization and monitoring of voluntary regional networks for cancer care involving an increasing number of physicians concerned with cancer care.

\textsuperscript{19} This level is quite high since it is the level that the National Cancer Institute of the United States wants to achieve and since it is twice the estimated level in Canada (Stratégie canadienne de lutte contre le cancer, 2002).

\textsuperscript{20} The data are extracted from two different investigators, which may imply differences in the methods of investigation. Nevertheless, they have been published by public reports, which means that Cancer Centers are henceforth considered as major actors of French clinical research.

\textsuperscript{21} French Association of Urology, French Society of Cancer, French Society of Oncologic Gynaecology...

\textsuperscript{22} Depending on the area and the relations between the different actors operating in the region, physicians belonging to other local healthcare organizations might participate in the process.
A renewed legitimacy

In the same period and as a result of this diversification, Cancer Centers have also been able to restore their legitimacy in the field of cancer care. The first indicator of this is the increase of their relative “market-share” which reflects the fact that more and more professionals call on their competencies to treat patients. While the number of new cancers treated in the centers had stagnated around 25,000 by year during the 1980s (cf. supra), it reached near 40,000 at the end of the 1990s. The last national report on cancer care (2002) estimates that Cancer Centers produced 18.8% of cancer care in France, which is more than the 29 regional research hospitals (16.3%). Even more impressive, 55% of their patients are recruited outside their nearby territory: in other words, they have been draining difficult cases from outside their traditional territory, reflecting their role of support for the other organizations. But even when they do not treat patients, Cancer Centers’ physicians do participate very often in the treatment decisions. More and more frequently, physicians of other hospitals ask for their opinion about the right treatment to choose. In 2000, Cancer Centers’ physicians were invited to 200 hospitals to discuss medical cases of local patients. This shows an increase in comparison to the 1980s (cf. supra). Furthermore, between 1995 and 2000, the number of medical records which have been seen by Cancer Centers’ physicians during these meetings has grown up from 33,000 to 50,000. Last, the number of Cancer Centers’ physicians who are teaching oncology in the medical faculties has grown from 50 in 1995 to 150 at the end of the 1990s.

The second and no less important indicator of the restored legitimacy of Cancer Centers is the fact that since 1998, the regulatory authorities have not only stopped their criticism of the centers, but have even made into icons of what ought to be done. In the past decades, national plans for the fight against cancer had been traditionally the occasion to raise questions about the legitimacy of the Cancer Centers, to criticize their functioning if not their very existence. Not any more: in the last two plans launched in 2000 and 2002, Cancer Centers have regained an influential position. Already in 1996, when the Ministry of Health initiated the accreditation program for French hospitals, the executive director of the National Federation of Cancer Centers was nominated as President of the Scientific Council of the structure in charge of this procedure, since Cancer Centers had been precursors (cf. supra). And the last national plan launched in 2002 stipulates that each Cancer Center is de facto the leading regional pole, in collaboration with the university hospital. This plan also (re)creates a national committee in charge of elaborating recommendations on French cancer policy. In this committee, 3 members out of 6 represent Cancer Centers and a fourth one
is the President of the National League Against Cancer which is also the main financial partner of the National Federation\(^\text{23}\) (cf. *supra*).

An even more striking example of this regained legitimacy lies in the recognition by the university hospitals of the medical model that Cancer Centers have been defending since their creation: pathology-oriented specialization and multidisciplinary organization. Traditionally opposed to this model, university hospitals in 1997 created a national federation of oncology. The aim of this federation is twofold: it is to start negotiations with the National Federation of Cancer Centers (thus recognizing it as a major player) but also at promoting in every hospital a more pathology-oriented organization beside the traditional organ-oriented organization – in particular through the creation of multidisciplinary meetings. By 2001, every university hospital had created such a coordination-structure.

“Our will is strong to go beyond these old quarrels [between us and Cancer Centers]. These quarrels were based more on fears and misunderstandings than on a real disagreement. They were principally due to the old organization of oncology inside our hospitals, where organ-specialists were responsible for this domain, independently of the other specialties. Current organization allows in most of our hospitals to go beyond this individual system. (...) This situation is the consequence of the fact that for long cancers had been treated in Cancer Centers and not in our hospitals. Thus, I think our hospitals lack an “oncology sense” which allows a student who wants to specialize in oncology to find in his organization the necessary structures to acquire a training in this specialty. Today, future oncologists are bound to acquire such a training in a Cancer Center or in another healthcare organization. (...) Such an organization [that we put in place] is obligatory to acquire this “oncology sense”.” (emphasis added) Hearing of a Pneumologist, President of the National Federation of oncology of the university hospitals, in front of the Senate commission, 03/05/2001

Furthermore, from 1998 on, the necessity of developing multidisciplinary meetings has been put forward by the regulatory authorities. Significantly, it is one of the priorities of the last national cancer plan presented in 2002. The pathology centered approach of the Cancer Centers has indeed been officially and explicitly endorsed and officially legitimized by the regulatory authorities. Thus, the Ministry of Health now has plans to increase the number of oncologists, who are not specialized in the organs but in the pathology, and requires from university hospitals that they identify oncology as an activity (specialty) if they want to be considered as being part of the leading regional pole with the corresponding Cancer Center.

\(^\text{23}\) Furthermore, this President had been President of the National Federation for 15 years between 1982 and 1997.
An interactive process of institutional change

If we try to sum up the story of the reinstatement of the French Cancer Centers as pilots and dominant actors of the field of cancer care in France, we could roughly present it as a four stage process.

To start with, we have an organizational field of loosely coupled organizations engaged in the same activity and sharing the same basic skills which distinguish it from the larger environment of French hospitals as well as from the even wider environment of the French health care sector. Both of these environments undergo significant changes.

The technical environment of the Cancer Centers is subject to at least two major transformations. On the one hand, the rise of medical oncology and with it of chemotherapy revolutionizes not only the technology of treatment (greatly increasing the chances of curing a hitherto largely incurable disease), but also the power relations among the different specialties involved in the treatment of cancer. On the other hand, special skills of Cancer Centers become wider diffused, sharply increasing the competition for patients among health care institutions.

Simultaneously, the institutional environment of our organizational field undergoes equally dramatic changes. The rampant financial crisis of the social security system leads to the reorganization of the public health administration on a regional basis, which brings about much closer scrutiny on the structure of the regional health care sector with pressures to streamline and rationalize this structure by eliminating redundancies and creating quality and treatment standards. Simultaneously, another “organ-centered” paradigm for the treatment of cancer was ushered in by the rise of the university research hospital and strongly challenged the hitherto unquestioned domination of the Cancer Centers pathology-centered paradigm. Last, but not least, one could and should mention the rise of evidence based medicine which has ambiguous implications. It can be considered both a modification of the institutional environment (insofar as it represents a new medical paradigm with its cognitive and normative implications on what cancer is and on how to go about treating it) and a change of the technical environment (insofar as it also represents a new way of collecting, analyzing and using scientific information in medical practice). Its overall implication however was to institute the existence of clinical research as a new criterion for establishing the legitimacy of health-care institutions, enhancing the pretensions of the university hospitals in the face of Cancer Centers which had not yet adopted behavior congruent with this new standard.

At first, these transformations go unnoticed by the Cancer Centers and lead to the rapid decline of their relative position in the field of cancer care in France. However, as we all too well know, this decline in itself is not sufficient to explain that individual Cancer Centers as well as the Federation in charge of the
organizational field eventually responded to the multiple challenges they faced. It took the emergence of a group of skillful actors in order to construct a response which can be seen as the second stage of the process. There is nothing natural or mechanical about this second stage: it owes to a series of factors outlined above, some of which were purely contingent. The probability of their encounter can be pointed out and be rationalized after the fact, just as on Monday mornings it seems evident to everyone what the quarterback should have done in this or that situation. But if we want to avoid historical hindsight, the reform-coalition as well as the nature of the policies proposed and implemented by them were not predetermined in any way. Neither was the fact that they happened also to be skillful actors, i.e. actors capable of mobilizing and negotiating change with their colleagues as well as with the environment.

The lines of action which were implemented in the third stage, present an interesting blend of new and old. The insistence on guidelines, on certification and on medical research were new for the Cancer Centers. They came from the outside and were imported into the organizational field by the reform program. The insistence on multi-disciplinarity, on collegiality and on a pathology-centered approach to cancer-care was capitalizing on the specific competence and skills (Selznick 1957) of Cancer Centers, which make up their historical identity and which provide some common ground valued by all physicians in Cancer Centers. Indeed, this identity was put forward as an issue to be defended, and used as a basis and as a tool of mobilization in favor of change. Throughout the 1990s, the argumentation used by the reformers was to say that change was needed in order to save the essential, i.e. the pathology-centered, collegial model of Cancer Centers. And this model did in fact provide peculiar resources to carry further important dimensions of the reform. For instance, as early as the sixties, the principle (or idea) of collegiality had lead to the creation (acted out even in formal organization) of regular (often weekly) meetings where physicians discussed about the right treatment to choose. Physicians in cancer Centers thus had grown accustomed to showing his or her patient’s records to other physicians, and were ready to understand the utility of guidelines as a coordinating mechanism. The implementation of the scientific sub-projects was thus able to (and indeed did) capitalize on these cognitive and relational capabilities developed through collegiality.

The end-result of this reform drive is impressive. The organizational modernization of Cancer Centers is successful and prepares for stage four of the process. It strengthens the position of individual Cancer Center in their respective region, and strongly enhances the organizational capabilities of the Federation as the center of a more unified organizational field: on this basis, both can become proactive in structuring the wider sectors of cancer care and health care on their respective levels of action. Individual Cancer Centers continue to grow despite financial restrictions imposed by regulatory authorities.
on the entire health sector. They are by far the main producers of guidelines in cancer care, which makes them clearly the dominant actors in the field of cancer care. And their organizational model based on multi-disciplinarity, collegiality and a pathology-centered approach to cancer has become the generally accepted norm for cancer care in France and is now making inroads even on the European level.

3. Discussion: The Interactive Nature of Institutional Change

The chain of events which lead to the successful modernization of the French Cancer Centers and their reinstatement as dominant actors in the field of cancer care seems to provide a clear evidence of institutional change: an organizational field is being transformed in its internal structure as well as in its relations to its different environments in both its technical and institutional dimensions. The characteristics of this process of change directly challenge what could be called the “strong program” of neo-institutional theory viewing institutional change essentially as the passive alignment to impersonal exogenous forces, while they corroborate most of the literature which has criticized this strong program by emphasizing the ambiguous and diverse nature of environmental pressures as well as the importance of strategic choice, i.e. of interest driven purposive action, in explaining institutional change.

Two features of the process we observed seem to us to be of particular significance and to warrant further discussion. First, our process illustrates how change is in fact the product of the meshing or hybridation of exogenous pressures from the environments with endogenous dynamics of the organizational field: outside pressures are not just passively taken in and conformed to, they are translated, interpreted and accommodated to internal dynamics (Callon 1986; Friedberg 1997). And second, the crucial role played by the group of reformers in initiating and monitoring this process of accommodation. Put together, these two features make up a more complex and interactive picture of organizational or institutional change, where the motor of change structures and simultaneously is structured by the process it is driving and where the initiators of reform and change have to create their proper and specific combination of old and new in order to build an innovative dynamic.

3.1. Between compliance and resistance: accommodation

It could be tempting to interpret the whole modernization process of the French Cancer Centers (its initiation as well as its timing and its contents) as the pure manifestation of the forces of isomorphism in its “coercive”, “normative” and
“mimetic” dimensions (DiMaggio and Powell 1983; see also Scott 2001). And some points could certainly be made to underpin this interpretation.

Some of the features of the reform can certainly be interpreted as an alignment to pressures from the regulatory authorities. Indeed, the strategy to reposition Cancer Centers as a support for other healthcare organizations in their region was congruent with the 1991 law which aimed at organizing the French healthcare system on a regional level and at promoting complementarity and cooperation among the actors in the health care sector. In the same vein the emphasis on the production of guidelines for treatment could be understood as conforming to what has become a central orientation of the French healthcare policy: the 1991 law encouraged the evaluation of medical practices (but did not propose any concrete disposition) and, in 1993, another law for the lucrative sector put forward some medical standards that liberal physicians must abide. By the same token, there are some characteristics of the modernization process which could be linked to normative pressures stemming from professional constituencies (DiMaggio and Powell 1983). One could argue that the emphasis on the development of clinical research in Cancer Centers as well as the commitment to producing guidelines corresponds to a major trend in modern medicine (Berg 1995; Löwy 1996; Marks 1997; Bensing 2000; Timmermans and Berg 2003) which Cancer Centers and the leaders of reform merely took over. And last but not least, one could argue for mimetic isomorphism which would interpret the Cancer Centers’ policy of hosting labeled research-units in fundamental research as their attempt to reproduce structural features of, and thus to catch up with, the most legitimate organization in the French healthcare system, i.e. the university hospitals.

However, none of the evidence is overwhelming, and plausible counter-arguments can be developed. The mimetic relations between university hospitals and Cancer Centers were indeed not univocal and imitation went both ways. Cancer Centers also innovated in other organizational areas and intended also to affirm and to defend some organizational peculiarities, which in turn influenced university hospitals’ medical organization. For instance, they successfully resisted the organ-centered approach which was represented by university hospitals: in the end, oncology and the Cancer Centers’ pathology-driven, multidisciplinary approach won out. The organization of clinical research tells a similar story. The idea to transform the National Federation into a structure able to conduct multi-center clinical trials was not the result of a mimetic process, since such a national structure did not and still does not exist for university hospitals. And that organizational as well as intellectual innovation (at least in the French context) in turn structured the area of clinical research in cancer beyond the confines of the federation: today physicians from university hospitals have come to participate in the Federation’s trials. And last but not least, Cancer Centers were precursors in the production of guidelines in
oncology, an effort which eventually drew participation from interested physicians of the university hospitals.

The case for normative isomorphism is not much stronger. Many authors agree (Sackett and al. 1996; Marks 1997; Hafferty and Light 1995; Harrison 1998) on the point that clinical research and even more treatment guidelines are still subject of strong controversies in the medical profession. While the existence of a trend in this direction can certainly be used as an argument in favor of such policies, it is not yet established and shared enough to be considered as a uniform pressure for change in a definite direction. And this pertains perhaps even more to the French situation in the field of cancer care. As we have already seen, the Cancer Centers’ program for guidelines has been a precursor in France and even outside France, since the number of publications related to evidence-based medicine has begun to grow up only from 1995 on (Bensing 2000; Timmermans and Berg 2003). And again, the pressures may now be seen as reversed: as leaders in this field, Cancer Centers set the pace and the standards which are imitated by other actors in the field of cancer care.

The strongest case could probably be made for coercive isomorphism, since the financial prerogatives of regulatory authorities (especially social security) in the field impose indeed heavy constraints on all health-care organizations. But again, without denying or even diminishing the influence of this regulative environment, its importance should not be overestimated. Analysts consider that the impact of the 1991 law on the French healthcare system was actually very small, since it created neither legal obligations nor even real financial incentives (Souteyrand and Contandriopoulos 1996; Minvielle and Contandriopoulos 2000). Cancer centers had been one of the few healthcare organizations to react to it. The same could be said about the 1993 public report on cancer centers. First, reformers took the initiative for reform way before its publication. Second, it did not contain any concrete propositions nor did it in itself have any coercive power: it was only a report to inform regulatory authorities on the basis of which they could eventually have taken appropriate steps.

So the evidence is muddy at best. Pressures from the environment do exist of course, but the content of the reform cannot easily be linked precisely to these pressures, and in many instances goes beyond to what mere alignment to the relevant environments would and could have required. These difficulties in the appreciation of institutional change as the result of isomorphic pressures point to at least two difficult methodological problems.

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24 Paradoxically, the only corrective action it mentioned was immediately rejected a few lines later: the renegotiation of the social status of the non medical personnel, in order to limit the cost of the wages, was judged impossible because of the social troubles it could carry.

25 As a matter of fact, regulatory authorities never used the report publicly.
The first is the question of the frame of reference. Isomorphism might appear to be at work or not according to the frame of reference chosen. For instance, one could plausibly argue that put into the framework of the field of cancer care in France (all the organizations concerned by cancer), a good deal of the change-program implemented by the Cancer Centers (collegiality, centralized organization of clinical research, massive reliance on evidence-based medicine and the production of guidelines) actually could be seen as illegitimate change, i.e. change going against the dominant professional and organizational myths, rationales and repertoires of the field. The same conclusion (with minor modulations) could be drawn if the frame of reference were the French healthcare system: in almost all its aspects, the modernization of the French Cancer Centers was anticipating and setting trends more than following them. If the international field of cancer care were the frame of reference, the conclusion would be less clear: in some aspects, the reform we observed indeed imported into the French context what was becoming standard procedures in the international professional community of oncologists. And still another conclusion would be if the frame of reference was the organizational field of Cancer Centers itself over time: here, the impact of isomorphic pressures towards a more unified and centralized mode of functioning are clearly observable, they can even be considered as a direct outcome of the modernization process.

The second question is linked to the nature of what can be considered proof of the impact of isomorphic pressures. What on a purely formal level could appear as isomorphic alignment turns out quite differently when studied in detail. A case in point would be the issue of guidelines in cancer treatment. As we have shown above, this could superficially be seen as the alignment to what has become a major orientation in French healthcare policy. However, as soon as one looks deeper into the matter, discrepancies become evident. In the minds of the regulators, treatment guidelines are a means of raising quality of treatment, rationalizing medical practice and (last but certainly not least) cost-saving. Implemented by the Cancer Centers, it becomes a way of raising quality of treatment, but also of re-legitimizing professional practice in the Cancer Centers and (last but certainly not least)...for justifying rising costs by pointing to the scientific basis of treatment guidelines which in particular incorporated expensive progress in chemotherapy. In other words, they played along with the idea of guidelines, but made something quite different out of them, transforming into a resource what was meant to be a mechanism of constraint and a means of control26.

26 The same could be said of the trend towards clinical trials. Cancer Centers innovated in promoting clinical research while at the same time making it an instrument for draining resources for the Federation. Today, the Federation of cancer centers is the main national organization to conduct clinical trials besides the pharmaceutical industry.
It seems to us that any unilateral vision of the reform process clearly does not do justice to the facts. Outside pressures were not strong, not explicit, not specified and not consistent enough to determine any precise direction of change. At best they provided a background and a climate on which the project or will for reform could be grounded and which was loaded with possible and divergent directions and repertoires of action on which modernization could draw. The actual reform program was thus not an instant and unique response to technical or institutional pressures: it was rather a gradually clarified accommodation to ambiguous signals of changing conditions. It consisted of programs and ideas taken from different environments and different constituencies, blending them with endogenous ingredients based on the traditional collective identity of Cancer Centers and mixing everything into an original package the implementation of which succeeded in reinstating Cancer Centers as the leading institutions in French cancer care. It is not a case of acquiescence, manipulation, resistance, imitation (Oliver 1991) and it is not only a story of responding to outside pressures: the reform strategy, the formation and implementation we observed, is not any of these categories alone; it is all that and more, it is a mix of endogenous ingredients and exogenous elements, it is the story of internal resources enabling the perception, the reframing and the transposition of external transformations, a package put together by skilled actors using their cognitive and political frames and resources and capitalizing on endogenous and exogenous dynamics.

3.2 The importance of interest-driven, purposive action for the explanation of change.

All this underscores the importance of agency in understanding this particular process of institutional change. Neither the initiation, nor the contents of the reform and the particular dynamic it followed can be explained without looking at the nature and the action of the group of reformers who took it upon themselves to modernize what they considered an instrument worth while keeping and promoting.

To begin with, the emphasis on clinical research as well as on the pathology-centered approach and on pluri-disciplinarity can be seen as a reflection of specific features of our group of reformers. As we have shown above, the members of this group shared common disciplinary interests as oncologists in the face of surgery as the then dominant treatment technique for cancer, they had similar career paths\textsuperscript{27} and hence a similar vision of where cancer-care was heading. Hence it is not surprising that they would consider evidence-based

\textsuperscript{27} In her study of the regional reform of 1964 in France, Catherine Grémion (1978) has shown the influence of different career-paths on the construction of the different options of reform.
medicine in general and clinical trials in particular as the appropriate way to improve the visibility of Cancer Centers.\(^{28}\)

By the same token, it is interesting to note that they were the directors of Cancer Centers which were particularly exposed to competition from other health-care organizations in their region and which as a consequence had experienced a sharp decline in their “market share” and a direct challenge to their role as a leader of cancer-care. They were thus more sensitive than their colleagues from other, still more protected regions, to the overall threats of a changing environment.

Taken together, all of these characteristics make for a distinctive group of physicians among their fellow-directors. They facilitated the coming together of our four reformers and account for their emergence as a group of new contenders for leadership in the organizational field of Cancer Centers as well as for the lines of action which they decided to privilege. One could say that as a group, our reformers/contenders were at the same time sufficiently central and legitimate in the power-structure of the organizational field (as they were directors of important, even though destabilized centers and mastered the new skills of chemotherapy central to the progress in the fight against cancer) and sufficiently marginal in regard to the professional profiles of their fellow-directors and of physicians in Cancer Centers in general, to be sensitive to the upcoming crisis and to have the cognitive and relational skills for projecting a different future for their institution.

However, much more important than the initial characteristics and the initial project of the group of reformers, was the way in which they deployed their action, how they succeeded in creating awareness and in progressively mobilizing the professional community around them by translating the transformations in cancer care and in the wider health care scene as well as the themes of reform they had chosen into cognitive categories and repertoires familiar to their colleagues, at the same time renovating these repertoires and reformulating their lines of action. How, in other words they succeeded in marrying traditional ingredients of the organizational and professional culture of Cancer Centers with the new constraints of action.

A good case in point is the guidelines project which turned out to be one of the main tools in mobilizing Cancer Centers in favor of change. The design of the line of action was progressive and incremental and mobilized, structured and enhanced already existing internal resources. Initially, guidelines where thought of as therapeutic recommendations based on experience and physicians’

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\(^{28}\) Indeed, they belonged to what Marks (1997) would have called therapeutic reformers by Marks (1997): they tended to try and improve the efficacy and reduce the heterogeneity of medical practices through the development of rational methods.
practice. It was only in 1993 that the reformers came to give a more precise definition of the “guidelines project” after their trip to the United States (cf. supra).

The reformers were just as pragmatic in the implementation of the project. Instead of building from scratch the organizational infrastructure for the elaboration of scientific guidelines, they plugged it into already existing resources and used repertoires of action already well established in the Cancer Centers. Since the 1980s, some physicians from different Cancer Centers had regularly convened in thematic groups to discuss scientific questions. The reformers capitalized on this experience in inter-center cooperation by mobilizing those physicians who had taken responsibilities in these inter-Centers groups and who had been able to acquire a kind of scientific legitimacy among their peers. Under the leadership of these physicians, the movement spread quickly and enjoyed high acceptance among Cancer Center physicians. In 1993, 300 Cancer Centers’ physicians took part in this project, whether in the development or in the external review of the guidelines. In 1995, they were more than 600 (out of a total of 1000 working in the Cancer Centers).

Another example can illustrate the skills of the reformers in accommodating new ideas in old repertoires, thus changing their significance completely. It was an established rule for Cancer Center physicians to consult on difficult cases in other health-care organizations to which they brought their expertise. Such consulting had been used as a recruitment procedure for patients, as a tool for draining patients to Cancer Centers, and had therefore come under growing criticism from the other health-care institutions which, with expertise being less rare, had a tendency to avoid calling on Cancer Centers, if that was possible, in order to keep their patients “under control”. The reformers capitalized on this tradition, by turning it around and by plugging it into the guidelines project. Local networks for the implementation of guidelines become the organizational infra-structure for exchange around difficult cases and the de facto hierarchization of cancer care: the “normal” cases for small non-profit and for-profit hospitals, the difficult cases for the Cancer Centers and the regional University-hospital(s).

As the product of human agency, the change process was highly contingent. None of its features was inevitable. It would not have happened hadn’t it been for our group of reformers and their skills. At the same time, the process we

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29 One could add that this was also true because of another organizational or processual innovation. Whereas medical guidelines in the French health care system are elaborated on a national level and then prescribed for local medical practice, cancer guidelines are nationally, but then implemented regionally through regional oncology networks which give the local practitioners a chance to work over the national guidelines and adapt them to local conditions (Castel and Merle 2002).

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observed was conditioned, but not determined by the context of action in which it unfolded. Cancer Centers could well have been merged with and dissolved in, university hospitals, and the organ-centered approach to cancer care could have won out. Or the process could followed different roads, at different speeds and with different results. It unfolded and developed the way it did because a group of reformers decided to take action and managed the change process in certain ways and towards certain results.

But admitting this role of agency does not and should not presuppose mastery of the process. There was not a group of super-lucid challengers who had it all planned and laid out and were then able to impose their design and a new set of practices, repertoires and rules of the game fixed and packaged from the start. It was a process full of surprises and partial redefinitions, where projects took form progressively, where problems were discovered during implementation, where reformers tried to understand experience and learn from it. It was a process in other words, where the goals of the reformers evolved with the unfolding of the process they had initiated, and where the events and compromises of each stage fed back on, and influenced, the initial design. Neither the identity of the reformers, nor the goals, content and scope of the reform stayed quite the same during the process, but were redefined by the interaction processes through which action was being implemented.

Our case thus corroborates the analyses of some authors who recently tried to “bring actors back in” the study of institutional change (Fligstein 1997, 2001; Kondra & Hinings 1998; Beckert 1999). Indeed, the reformers of Cancer Centers can be defined in Fligstein’s words as “socially skilled actors”. On the one hand, they succeeded in making sense of the situation that directors and physicians of Cancer Centers were encountering and in redefining their collective interests and identity. On the other hand, they were pragmatic enough to use the resources at disposal and induce co-operation among actors. Nonetheless, the frame of analysis explaining institutional change roughly as the victory of “challengers” over “incumbents” seems to us too simplistic to be really meaningful. If, to its credit, this distinction recognizes (and rightly recalls) that power is crucial to understand organizational as well as inter-organizational phenomena (Crozier 1965; Crozier and Friedberg 1980, Pfeffer and Salancik, 1978, Pfeffer 1981), it is based on a dichotomized vision of the field of action which as such is hard to find in reality. There are three issues that we would like to raise.

First, in our story, it is very difficult to distinguish who were the incumbents and who were the challengers: the university hospitals and the Cancer Centers were altogether and on different topics both challengers for each other and incumbents. And if the frame of reference is the narrower organizational field of Cancer Centers, can we really assume that our oncologists were challengers? We demonstrated that they had on some topics more resources (and also more
legitimacy) than, to say it short, “traditional surgeons”, so here again by some
token they were challengers whereas by some other they were also incumbents.
Second, and perhaps more important, this dichotomy prevents to see that it was
precisely the fact that our “social skill actors” were both insiders and outsiders
which helped them succeed in their reform enterprise. They were challengers
who tried to change the traditional approach of cancer care, but they were able
to accommodate the reform with “old repertoires” and “traditional identity”
because they were also part of the “incumbents” (and incidentally had been
educated in this group)\textsuperscript{31}. And last, but certainly not least, the rigid vision of a
fight between “challengers” and “incumbents” or “renegades” against
“institutional operators” tends to forget that the issues of change owe more to an
interaction between these foes than to a revolutionary upheaval where one
victorious vision replaces another defeated one. A reform is an encounter of
conflicting claims, but never an all for nothing proposal: if it is to succeed, its
content owes as much to incumbents as to challengers, it is the product of their
interaction.

3. The interactive nature of institutional change

It seems to us that the characteristics of the change process which we have
observed, lead us to emphasize the interactive nature of institutional change.
The first meaning of the word refers to the simple empirical fact that the
modernization of the cancer centers cannot be seen as reflecting mere adaptation
to outside pressures. When we look at the unfolding of the process, we realize
that action by the reformers actually blurred the distinction between what is
inside the organizational and what is part of its environment. What’s more, we
realize that instead of unilateral adaptation, we have a process where
transformations in the environment generate pressures for change inside, but
where in turn changes in the organizational field of Cancer Centers transform
conditions in the larger environment of cancer-care and even health-care. Inside
and outside are in this perspective not a dependent and an independent variable,
but an interdependent entity, environmental pressures and organizational
responses being simultaneously resource and constraint for the actors who are
engaged in the field and whose action is both structured by, and structuring for,
each other.

But the word interactive refers to a more fundamental level of analysis where
social action is conceptualized as being carried out by purposive social actors
related to one another by strategic interdependence. This perspective contends

\textsuperscript{31} We see clearly that very similar critics can be adressed to Beckert (1999) who sees entrepreneurs as
destroyers of institutions (p.788) and to Kondra and Hinings (1998) who describe “renegades” as operating
“outside institutional norms” (p.753).
that in order to come to grips with the analysis of institutional change, we must develop some sort of a middle road between on the one hand holistic approaches leading straight to a sociologistic "over-socialized" conception of man as the passive bearer of social norms and social structure, and on the other hand "hard", de-contextualized and "under-socialized" conceptions of intentional, utility-maximizing man characteristic of standard economic theory as well as of much of efficiency–driven organization theory. Between these two extremes which, as Menger (1997) has shown in a well documented and well reasoned article, share the same tendency to deterministic reasoning and have difficulties in integrating change in their analytical framework, there must be made room for a “soft” methodological individualism which recognizes the relative autonomy of the individual in his or her relationship to social structure, and thus his or her capacity as actors, i.e. generators of the very structures constraining them (Sewell 1992, Friedberg, 1997 and 2000), and which, as a consequence conceives of social structure as at the same time producing the actors and their action and being (re)produced by them and their action. Actors and structure, while being analytically distinct categories, are in this perspective reciprocally related in mutual non-identical (re)production.

In other words we need a perspective which at all levels of analysis makes place of the “actors capacity to reinterpret and mobilize an array of resources in terms of cultural schemas other than those that initially constituted the array” (Sewell, p. 19) as well as of his or her capacity to exert “some degree of control over the social relations (structures) in which one is enmeshed, which in turn implies the ability to transform those social relations (structures) to some degree.

32 In particular, Menger shows that economics and sociology can both be partitioned along a divide between deterministic and non-deterministic frameworks, the latter being the characteristic of inter-actionist perspectives in which the identity of actors is specified only by the nature of their participation in cooperative relations of strategic interdependence (Menger 1997, p. 597) and in which interaction is always also a formative process of the identities of the actors participating in the interaction (Menger, p. 599), where in other words the individual actors change over time as they produce a changed context.

33 Which therefore always have to be concrete and contextualized (Maurice 1995, p. 654, Friedberg 1993, chap. 8)

34 For individuals as well as for organizations (collective actors of all sorts) interacting with one another
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