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From micro level actions to deinstitutionalisation: the case of asbestos in France

Hélène Peton

helene.peton@dauphine.fr

Antoine Blanc

anblanc@gmail.com

Université Paris Dauphine

This study explores the deinstitutionalisation of asbestos in France from 1970 to 1997. While many institutional studies emphasize the role of external jolts or crisis to explain change and disruption, we focus the analysis on the succession of actions achieved by different individuals and organizations over a long period. In addition to this, we observe the macro-evolution of the regulative, normative and cognitive dimensions underlying the use of asbestos. Exploring the interaction between the macro and the micro levels, we attempt to identify some characteristics of actions which have the strongest potential of institutional disruption. Our findings illustrate that neutral actors play a very important role in this process. Besides, institutional efforts at a micro level are captured in momentums which have more impact on institutions. Centrality in the field does not appear as a significant factor of deinstitutionalisation and we show also that iterative-agency based actions also contribute to deinstitutionalization process.

Some actions and events have the power to radically contribute to institutional disruption. Several scholars have emphasized deinstitutionalization cases, which illustrate the capacity of actors to alter and destroy existing institutions (Hiatt et al. 2009 ; Maguire and Hardy 2009 ; Oliver 1992). While many studies about institutional change have relied on longitudinal analysis over several decades (amongst others Chung and Luo 2008 ; Greenwood et al. 2002 ; Hoffman 1999 ; Leblebici et al. 1991 ; Tolbert and Zucker 1983), studies about institutional disruption or deinstitutionalisation have emphasized the role of jolts (Meyer et al. 1990) that destabilize established practices in three ways, technological, social and regulatory (Greenwood et al. 2002). Jolts catalyze the evolution of the field and precipitate its change.

As instance, Maguire’s and Hardy’s research (2009) underlines the publication of *Silent Spring* as a jolt that initiated the decline of DDT. In their study, Ahmadjian and Robinson (2001) attempt to explain the deinstitutionalization of permanent employment in Japan. For that purpose, they focus on the role of downsizing in Japanese firms in a fairly short period between 1990 and 1997. Little is said about older events that have prepared the basis of change.

However, we argue that studies about deinstitutionalization mechanisms should give more attention to longitudinal effects of successive institutional actions. Munir (2005) insists on the fact that institutional change cannot be attributed to a single event – a jolt. Instead, change is the effect of a social construction of events that are collectively assimilated, sorted out and theorized. Following Powell’s and Colyvas’ call for a micro-level theory of institutionalization (2008), we think that the study of deinstitutionalisation should consider how actions alter institutions over long periods in concrete social situations.

This article attempts to explore the complex succession of actions that has led to the decline and then the abandonment of asbestos in France, first considered as a “magic mineral”. Asbestos is a natural fibre that was already known by the old Greeks and was popularized in the 19th century during the industrial revolution. By the mid of the 20th century, asbestos could be found almost everywhere, in concrete, roofing, pipe insulation, clothes and even in cigarettes. Its decline began in the 80s and its use was eventually banned in 1997 after a series of trials.

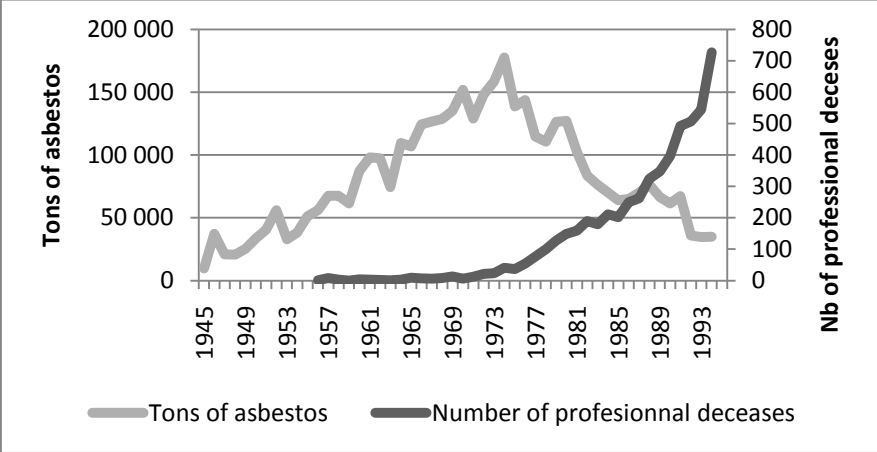


Figure 1: Decline of asbestos in France

Figure 1 shows the chaotic evolution of importation of asbestos in France. The decline is not brutal, and the underlying institutional process is long and complex.

In this paper, we examine asbestos as an institution, drawing on Scott's "omnibus" definition: "institutions are comprised of regulative, normative and cultural-cognitive elements that, together with associated activities and resources provide stability and meaning to social life" (Scott 2008, p.48). Similarly, asbestos is constrained and framed by three dimensions, regulative, normative and culturo-cognitive. The internal dynamism between these three dimensions is important to understand the evolution of asbestos, as an institution. For example, the alignment between the three pillars ensures a strong stability, as Caronna's study illustrates (2004) in the US care field.

While few scholars have explored the process of deinstitutionalisation (Greenwood et al. 2002 ; Hiatt et al. 2009 ; Maguire and Hardy 2009 ; Oliver 1992), more seldom have been the studies that explore the succession of actions at micro level in the process of institutional disruption. For Bartey and Tolbert (1997 p99) institutions are "historical accretions of past practices and understandings that set conditions on actions". This definition emphasizes the historical dimension of institutions that draw on past events to constrain present actions. To "delegitimize an established organizational practice or procedure" (Oliver 1992 p564), to disrupt taken-for-granted assumptions, and to annihilate logics of maintenance, deinstitutionalisation requires specific work (Lawrence and Suddaby 2006 ; Maguire and Hardy 2009).

Our basic research question revolves around the role of micro-level institutional actions, rather than jolts or a disruptive event, in the longitudinal process of deinstitutionalisation.

Through micro-level institutional actions, we mean all kind of efforts, in everyday social situations, that contribute, intentionally or not, to institutional evolution. These actions represent the attempt from actors to muddle through institutional constraints, to achieve their own interests and to defend their positions and ideas.

We have identified, through secondary data, primary data, and triangulation with experts a set of 55 institutional actions between 1970 and 1997. Then we explore the interrelation between these actions, and their institutional impact, regarding the regulative, normative and cognitive dimension. In addition to that, we conduct a systematic analysis of texts that have been produced around the issue of asbestos between 1970 and 1997. We use a lexicometric program – Prospéro – that is well adapted for the study of longitudinal struggles

(Chateauraynaud 2003; Chateauraynaud and Torny 1999). We show the evolution of the asbestos institution, exploring the temporal dynamics between the regulative, normative and cognitive pillars. We seek to connect institutional actions at the micro level with the evolution of the institution at the macro-level. An institutional action does not necessarily produce immediate effects on institutions, but can be associated, combined, translated, adapted by other actors and produce significant effects at an actor-level or group-level.

This study is an exploration of institutional efforts related to asbestos in France. We attempt to identify the characteristics of actions which contribute to deinstitutionalization, such as the type of agency that is implied, the intentionality of actions, the centrality of actors, the type of impacts (regulative, cognitive and/or normative). We also identify the interrelation between actions and their dynamism in the field.

Actions, Institutional Work and Agency

With this focus on processual dimension of institutions, the efforts of actors to purposively act upon institutions, or *institutional work*, as it has been coined by Lawrence and Suddaby (2006) are connected to deinstitutionalization process. Actions are temporarily situated. They are both embedded in a specific history and also inspire upcoming actions. Institutional work, at a particular time, echoes the history of the field.

The notion of institutional work provides a useful conceptualisation of the link between actions and institutions. It is neither a celebration of agency and entrepreneurship, nor a deterministic view, as institutional work refers to actions upon institutions in constrained environments. While this notion offers a stimulating approach to understand change and maintenance, it also raises several questions.

First, the notion of intention is fairly ambiguous. A critical issue is to distinguish the “disruption of institutions” with “disrupting institutions”. The former refer to a set of accomplishments while the latter is related to a set of actions. Intentions need to be separated from the consequences. A basic concern in this study is to take into account the intentions, and the concrete practices employed by actors to act upon institutions. Existing studies are focused on processes that connect actions with institutional effects but overlook most of concrete practices employed by actors, aimed at affecting institutions. As a matter of fact, institutional work may disrupt an institution, but may also fail to do so. The study of

institutional work sets a focus on all activities aimed at changing, disrupting or maintaining institutions, independently of their actual effects. This perspective may highlight some specific features that have disappeared from the institutional discourse. As Lawrence, Suddaby and Leca (2009 p11) put it “the study of institutional work offers an invitation to move beyond a linear view of institutional processes [...]. Because it points to the study of activities rather than accomplishment, success as well as failure, acts of resistance and of transformation, the concept of institutional work may contribute to a move away from a concentrated, heroic, and successful conception of institutional agency.

The major thrust of contemporary institutional research has been a deeper investigation of agency. As we explained, actors should not be celebrated as pure entrepreneurs, and a better conceptualization of their actions requires a better understanding of agency. Battilana and D’unno (2009), drawing on Emirbayer and Mische (1998), suggest that agency should be considered as a multidimensional concept based on three elements: iteration, projection, and practical evaluation. To put it simply, an iterative agency is oriented toward the past. It refers to actions and efforts based on habits, routines, and the issue of intentions and interests is secondary. Projective agency is oriented toward the future. Actors may imagine some new trajectories based on their intuitions, emotions, fear. In that case, their intentions and interests may be shaped by a projective vision. The last dimension, practical-evaluative refers to present situations. Actors may have to choose between different alternatives, which push them to make practical and normative judgments.

Such a conception of agency appears promising to study the role of individuals’ efforts in concrete social situation, whether they are based on routines, desires and emotions, or calculations.

Struggles and Asymmetries

The dynamism underlying deinstitutionalization and institutional work is not only temporal but refers to struggles between actors. In highly institutionalized fields, specific practices are taken for granted and are extremely resistant to change. Many actors are yet engaged into efforts to influence institutions (DiMaggio 1988 ; Lawrence and Suddaby 2006 ; Oliver 1991 ; Oliver 1992) which is a concrete manifestation of agency. Though institutions generate order, there are still conflicts and contradictions (Powell and DiMaggio 1991) and actors compete

around divergent interests. Institutional work is thus inscribed in institutional struggles. These struggles are rarely the opposition between equal forces. Actors are differently endowed with capital (Bourdieu 1977), which generates sources of power and defines different hierarchical positions amongst the actors of the field. The actors in favour of institutional change compete with those who aim at maintaining the existing institution. These struggles are asymmetrical, and in highly institutionalized fields, defenders of maintenance can have a significant power, and legitimacy – for example the role of elite agencies in effecting institutional ends (Lawrence et al. 2001). An important issue is to determine who benefits from specific institutional arrangements. To that extent, even if the political side of institutional change is sometimes eluded, the study of deinstitutionalization is more consistent if it is considered as an ongoing series of asymmetrical struggles, with competing practices aiming either at change or maintenance.

The position of an actor in an institutional field is here a significant matter. The institutional literature usually refers to a simple dichotomy that distinguishes central and peripheral actors. Lewin (1951) and Anand (2000) use the metaphor of electromagnetic attraction to refer to the notion of institutional field and its frontiers. For Hackman (1985 p61) the centrality is defined as “how closely the purposes of a unit match the central mission of its institution”. In this article, we define the centrality with three categories. Central actors are defined as groups or individuals who are part of the daily life of an institution, embodying the regulative, normative or cognitive pillar. Intermediary actors are those who exert strong and repetitive pressures on the institution, but who are not part of its daily life. Peripheral actors are defined as actors who are momentarily engaged in the life of the institution, for a particular event.

We consider that the position of actors can evolve over time, as the frontiers of institutions change.

As regards the consequences of institutional actions, in spite of asymmetrical positions and capacities, even unsuccessful institutional actions may not be purely vain. In this study, we are questioning the role of different types of actions, whether they have direct effects on institution or not. Even if an action for change is unsuccessful, it may leave a *residue*. The role of these residues is not well understood and little is known about their effects on other actions in an institutional field. We can define a *residue* as a set of values, beliefs, and practices defended by institutional actors that have emerged from an institutional action.

These residues may participate to change and to a progressive delegitimation of institutional arrangements when they are cumulated.

There has been no study of the longitudinal role of these residues in the deinstitutionalization process. This question is yet crucial, since it documents the role of successive institutional actions. In that case, deinstitutionalization would be neither a radical nor incremental change but a longitudinal process in which residues play a latent and cumulative role.

Method and data analysis

This study relies on a single and exploratory case. It illustrates an exemplary deinstitutionalisation process. From a “magical mineral” to the “the public enemy number one”, asbestos has been progressively considered as a lethal substance and has been forbidden. It has produced a world controversy, but the study of the French case in particular is interesting for two main reasons. The controversy in France has brought major social struggles and has generated a large coalition of opponents and defenders of asbestos. Second, it is remarkable for the length of the conflict (asbestos is forbidden in France only in 1997, instead of the 80’s for most other industrialized countries).

The case is well-documented, which allows us to have enough sources to understand the concrete practices of institutional work. We began by collecting data in the form of secondary accounts (Lear, 1997) to ensure convergence and triangulation on events. Then we interview key actors of the field.

To capture both micro and macro levels, on the one hand we draw on process theory (Van de Ven and Poole 1990) to constitute and analyse a database of actions that took place from 1970 to 1997. On the other hand, we depict the macro events in the field. Through an archival data analysis, we explore the evolution of the regulative, normative and cognitive dimensions related to the use of asbestos.

One difficulty in process theory relies in the selection of *qualitative datum* - that is an incident that may contribute to the deinstitutionalisation process. In our case, the basic unit is an action, whether it is achieved by an individual or an organization. An incident was defined as an action that may potentially challenge the existing institution, whether it is intentional or not. To that extent, we have excluded from our chronology repetitive actions and routines that only consist in the reproduction of institutionalized practices. This selection of actions was

discussed and validated with experts: Pr Brochard, epidemiologist who belonged to the CPA; Thébaud-Mony, researcher, member of the INSERM and Ban-Asbestos; Ledoux, lawyer for the asbestos victims in 1994; M. Parigot, professor at Jussieu and founder of the main association that protects asbestos victims. Then each action has been described and coded with different criteria: time, intentions, consequences, position of the actor in the field, type of agency, discursive or non-discursive actions, consequences on institutional pillars. Table 1 gives an example of three actions that have been coded. We use a binary coding, except for institutional consequences, coded between 0 and 3. “3” means that an action had significant consequences on the institution, whether on its regulative, normative or cognitive pillar.

The 55 actions have been coded by two researchers and one expert and in case of divergence were discussed to reach an agreement.

In order to identify possible relationships between actions and their characteristics we have employed statistical treatments, in particular we have calculated Pearson’s Chi² with different variables.

Actions	Intentions					Consequence			Actors		Effects on pillars			Type of agency			Explanation
	Maintenance	Defensive Change	Neutral	Adaptative Change	Disruption	Maintenance	Change	Pivotal Action	Name	Position	Cognitive	Normative	Regulative	Iterative	Projective	Practical	
Organization of an international conference about Asbestos in London with European and Anglo-Saxon producers	X					1			European and American researchers and producers	1	X	X				X	The intention of this organisation is clearly to maintain the institution (Intention = Maintenance). It promotes asbestos and elaborates guidelines to help producers to maintain their position. The consequence of this action is to help producer to maintain the practice (Consequence = Maintenance). The actors who attend the conference are central for the life of the field. Producers are vital to manage the practice. The agency linked to the action is a practical-evaluative one. It is a reaction to a critical situation.
Meeting between Jussieu and Amisol				X		3	X		Amisol Workers and Jussieu	2	X	X			X	X	This meeting represents a significant event in the field. The intention of the organizer is to enforce adaptative change. The literature and the interviews confirm that banning the practice is not the priority. Professors from Jussieu wanted to alert the public opinion to have access to information and workers went on strike to defend employment (Intention = Adaptative Change). Workers of Amisol and Professors of Jussieu occasionally applied pressure and challenge a practice that can survive without them (Centrality = 2). There were many and strong consequences to this meeting: a cognitive impact (asbestos=death), a normative one (working environment). These meeting was a response to a critical situation but there was a strong ideology linked with the questioning of the practice (Agency = Projective & Practical Evaluative).
Ban of flocking for lodging in France			X			3	X		French administration/ authority	3			X	X			We consider the government as a neutral actor. The intention linked to this action is to settle the controversy. The intention isn't to promote or to ban asbestos. Nevertheless, the consequences of this action are the maintenance of the practice and the reinforcement of its legitimacy. As the government routinely acts, we can consider that this action relies on an iterative agency. Moreover, this action is an extension of past actions.

Table 1: Coding of actions

To study the macro level, we rely on archival data analysis. We have constituted a corpus of texts from press, House of Parliament, books, press release, tracts, reports,...

	1970-1977	1978-1983	1983-1992	1992-1997
Authors of the texts from the corpus	- Asbestos Union (press release) - Media (press, radio, TV) - Workers' Union (tract) - CIRC (Public Institution)	- INSERM (public Institution, report) - Asbestos Union (white Paper, press release) - Government (Decree) - Workers' Union - Professors (letter to the government)	- CPA - Press	- Inserm - Senate - <i>Collectif de Jussieu</i> - Academy of Medicine - CPA - Press

Table 2: Sources of texts

These texts represent for different periods, from 1970 to 1997, the evolution of beliefs, norms and values around the asbestos practice. We have rather adopted a pragmatic approach and we have collected texts thanks to an extensive research on the Internet, on press database (Factiva) and on secondary literature (Chateauraynaud and Torny 1999 ; Evrard 2007 ; Henry 2007 ; Lenglet 1996 ; Malye 1996). We have also interviewed actors who have granted us an access to historic documents. It was an opportunity to determine the most influential texts that have been produced at different times. Discourse analysis is partially achieved with Prospéro (Chateauraynaud 2003). This piece of software is particularly well adapted for the study of texts produced in a polemic context. It is possible to compare texts according to the actors who have produced them and the period at which they have been published. In that way, we can observe the slight and progressive evolution in beliefs and norms.

We compare four periods that are representative of four distinct momentums in the field. We compare the corpus of the period 1 with the corpus of the period 2, then the corpus of the period 2 with the period 3 and so on. For each comparison, we focus on the changes for:

- Concepts (“fictive being” with Prospéro’s terminology): for example the concept “asbestos” refers to the word “asbestos” but also “magic mineral”, “white gold”, “amphibole”, “chrysotile”, ...

- The categories of concepts (for example scientific rhetoric represents the following phrases: “abstraction”, “analysis”, “experimental approach”, “classification”, “complexity”, “deduction”, ...)
- The categories of action (for example, the category “accuse/critic/complain” represents the following phrases: “accuse”, “condemn”, “contest”, “critic”, “denounce”, ...)
- The categories of markers, that is the way of speaking (for example, the category “orientation to the past” indicates the phrases that tend to express a general tone that makes reference to the past: “at that time”, “last year”, “before”, “in the past”...)
- The categories of qualities, that is the qualities that are associated with concepts (for example the category “medical” refers to “cardiac”, “carcinogenic”, “clinical”, “digestive”, “epidemiologic”, ...)

Case study:

Asbestos is a natural mineral that have been considered as a “magic mineral” in France (especially for the questions of rebuilding due to the consequences of the Second World War). In the 70s, asbestos was used in the production of about 3000 products in France and was the main lag used in the construction industry. Widespread uses of asbestos changed little in the 70’ until the scandal of Amisol workers and the mobilisation of the “Collectif de Jussieu”. The “Collectif de Jussieu” managed to communicate in mass media and succeeded in connecting different movements (its action with Amisol workers was a tipping point in the debate). It provoked strong reactions from the asbestos industry, which produced their own texts challenging the opponents’ claims about the noxiousness of asbestos. The asbestos industrial union organized a symposium the 29th and 30th of May 1964. The crisis period led to the controlled used of asbestos in France from 1977. The decision resulted from a general consensus. As a consequence, a new committee called CPA (Asbestos Permanent Committee) was created. This committee, gathering industrials, researchers and workers’ representatives, had to take decision concerning asbestos in France.

The system of the controlled use of asbestos is a consequence and a form of the defensive institutional work leaded by industrials. The interesting issue is how such a consensus has been decided. It is relevant to interests defended by the different actors. The all-interesting point is that actors engaged in the disruptive work didn’t want to ban the practice until 1996. Claims about the abandonment of the practices appeared very lately. This aspect is due to the

co-existence of conflicting interests and sociological evolution (unemployment, fear of outsourcing, demands for working conditions). We can note a shift in the topics of the debate between 1970 and 1997. During the 70s, debates were about unemployment. The hazards linked to asbestos had to be controlled to facilitate the protection of employment. This contextual fear of unemployment and the fact that professional risks were not topical issues explain the consensus around the controlled use of asbestos. During the 80s, questioning the practice wasn't frequent. The 90s represented change in the perceptions of work and especially working conditions. Claims for the ban of the practice appeared during this period because of the appearance of the first diseases, the publication of the report of the INSERM (French independent organisation) and international pressure.

	1970-1977	1978-1983	1983-1992	1992-1997
Workers' Unions	Save employment with health protection	No particular demand	No particular demand	Protection and compensation
Pressure groups	Health protection	Information	Information	Ban and compensation
Doctors / Medical Research Groups	Control and Protection	Research	Research (thresholds)	Ban
Companies	End of crisis Economic interests	End of crisis No spread of scandal	Compromise Maintain the use of asbestos	Low regulation Limited responsibility
State/ Local Authority	Controlled use (end of crisis and economic interests)	Consensus	Avoid new scandal	Ban Limited responsibility
The « Comité permanent Amiante » (CPA)			Controlled use Compromise	
Media	A few regional cases Workers' diseases	Silent period	Silent period (some articles in specialized press)	Spread of information

Table 3: Main actors and evolution of their actions and interests

Results

Table 3 gives a general view of the most significant¹ differences between the four periods, based on Prospero analysis.

¹ The significance is assessed using the highest variation in the occurrences of a category or a concept between two periods for the hundred most used categories or concepts.

		Period 1: 1970 - 1977	Variation between the period 1 and the period 2 (1977- 1983)	Variation between the period 2 and the period 3 (1983- 1992)	Variation between the period 3 and the period 4 (1992 – 1998)		
			%	%	%		
Entities	@asbestos	+265	Fibre ²	+196	@Companies	+750	@Cancer
	@workers	+158	Study	+191	Country	+395	Exposure
	@cancer	+104	Number	+176	@Building	+224	Study
	risk	+93	Companies' doctors	+127	Technique	+218	Risk
	@state	+72	Asbestos' Union	-96	@Population	+138	@workers
		+72	Tobacco	-95	Investigation	+115	Fibre
	-96	Dangers	-95	effect	-100	attendees	
					-99	Buildings	
Categories of entities	Opinion	+390	Consequences	+943	Determinism	+1293	Trials
	Alert and Dangers	+373	Guarantees	+882	Removal	+1095	Epidemiologic approach
	Scientific rhetoric	+344	Investigation	+275	Prospective	+541	Working conditions
	Denunciation	+287	Rhetoric of change	+268	Market logics	+403	Family relationships
	Statistic reasoning	+244	Ethic and Moral	+256	Managerial discourse	+315	Protests
		+177	Control and precaution	+252	Physical constraints	+210	Duration
		+172	Ecological discourse	+237	Political sociology	+192	Compensation
		+118	Statistical reasoning	+145	Compensation	+183	Judicial logics
		+115	Fault	+96	Concern	+167	Denunciation
		+106	Logic of threshold	-84	Working conditions	+149	Statistic reasoning
		+93	Prospective	-84	Epidemiologic approach	+141	State of consciousness
		-90	State of conscious			+115	Threshold
		-89	Denunciation			+112	Guarantee
						+104	Scientific rhetoric
					-86	Macro-economic analysis	
					-78	Consultation	

² For example, this line should be read as: the word fiber is 295% times as quoted in the period 2 as in the period 1

	Period 1: 1970 - 1977	Variation between the period 1 and the period 2 (1977- 1983)		Variation between the period 2 and the period 3 (1983- 1992)		Variation between the period 3 and the period 4 (1992 – 1998)	
Categories of qualities	Important	+416	Medical	+391	Bureaucratic	+673	Biologic
	Dangerous	+287	Stop/close	+84	Justification	+586	Ecologic
	Excellent	+201	Complexity	+84	Adaptability	+329	Fragility
	Accusing	+201	Observation	-94	Biological	+277	Medical
		-71	Dangerosity	-86	Medical	+214	Accusation
				-81	Fragility	+197	Old
					+169	Observation	
					+151	Satisfaction	
Categories of action	Know	+330	Analyse/observe	+391	Decide/	+403	Constraint
	Stop/Close	+244	Prove/validate	+329	legislate/prescribe	+320	Accuse
	Defend/support	+158	Predict	+329	Launch an alert	+228	Officialise
	Accuse	- 82	Stop/close/suspend	+206	Manage	+155	Unveil
	Assess			+165	Create	+151	Build
				+130	Repeat/reproduce	+110	Define/assess
				+108	Defend/support	-91	Promise
				-70	Advise	-84	Renounce
			-70	constraint /force			
Categories of markers	Negation	+373	Orientation to the	+145	Maximisation/prefer	+543	Comparison
	Graduation	+115	future		ence	+419	Time situated
	Duration	-81	Closeness	+145	Previous	+354	Academism
	Current events	-79	Evidence	+136	Connectors	+222	Agenda
			Conclusive	-80	Academism	+170	Hypothesis
				-80	Evidence	+160	Statistic
			-74	Unveiling	+156	Causality	
					-96	Maximisation	

Table 4: Variation between the four periods

Period 1970-1977

Between 1970 and 1977, texts mainly denounce the effects of asbestos on workers. For the first time, the use of asbestos is linked with cancer, which creates a Sword of Damocles hanging over the workers' heads. The notion of State is often used, which indicates a wish to implicate the State and bring a solution to a major health and professional issue. The categories of entities refer to denunciation and alert/dangers. This is typical of this period. For the first time, asbestos appears as a massive killer. It is accused of harming workers whose working conditions are not adapted. It is reinforced by the category "accuse" that is one of the main actions that are expressed in the corpus. The article published by Libération (daily newspaper) illustrates this point:

"Is there somewhere in France such a dramatic conflict, as heartbreaking as Amisol is? Can we talk about these workers without feelings? Since 19 months, these workers' feelings have moved from pessimism to hope and their action has changed from rebellion to resignation. What kind of words can translate this silenced scandal?"

Moreover, the discourse in this period is rather argumentative. It puts forward scientific rhetoric and statistic reasoning. It expresses what is at stakes with the Amisol struggle. It is important to "know" and to prove what the impacts of asbestos are. The controversy about the threshold for the quantity of asbestos in wine is representative. The need for justifications and proves is typical of subordinated groups who do not benefit from the higher legitimacy of well established actors, such as manufacturers or asbestos' Unions.

The most significant residue of the Amisol case relies on the association between workers, asbestos and death (cancer). These three elements act as a powerful basis for change, challenging the legitimacy of asbestos. A group of workers from Amisol holds a sign where it is written "doomed to unemployment and to slow death" (see Appendix 1). Even if this sign is small and discreet, the underlying idea has its importance to tackle the stability of the asbestos institution.

As regards the institutional actions, as they are shown on figure 2, the most important actions are those achieved by defenders of asbestos. Through the organization of an international conference, industrials shape an environment which can quickly respond to crisis. Meanwhile, a group of actions, led by fairly neutral intentions create a normative frame to discuss about asbestos. These actions, even if they are neutral led to a major action: the creation of the

movement of Jussieu. This action is important and is the direct origin of the Amisol crisis. During this crisis, workers in Amisol became aware that their diseases may be caused by asbestos. This series of actions led to normative and cognitive slight changes. In particular, as we explained earlier, asbestos appear as potentially dangerous for workers, and is associated in some cases with diseases and death. As a normative effect, the working conditions for employees tend to be more protective. However, at that time, asbestos remains largely approved. Even if the normative and cognitive dimensions of asbestos have changed, the regulation pillar remains almost unchanged.

Period 1977-1983

In the second column, the variation between period 1 and period 2 indicates that denunciation is no longer significant. Instead, the actions that have considerably increased are “observe/analyze”, “prove”, “predict”. To that extent, individuals’ and groups’ actions are oriented to a scientific activity. The increase in the use of the word “study” and also the quality “medical” corroborates that tendency. There is also one interesting discursive phenomenon. The word “fibre” is much more used during the second period. To that extent, there is a slight change to maintain the legitimacy of asbestos. Instead of accusing asbestos as a whole, only some fibers are identified and are accused of being responsible of cancer and other deceases. Asbestos is not necessarily lethal, but some of its fibers are. This distinction is important to justify the ongoing use of asbestos in spite of many deaths.

The increase in the use of categories like “consequences”, or “rhetoric of change” is meaningful. It shows a wish of changing things. Besides, the categories “guarantees” and “investigation” shows an attempt of reassuring people. It is an answer to the first period that develops a feeling of doubt about asbestos. In the second period, asbestos is presented as an issue that can be controlled as long as “precautions” are taken. Asbestos is not necessarily dangerous if it is properly used. To that extent, it is important to investigate on thresholds to minimize potential hazards. This defensive work is proactive. A compromise tends to be found: the dangers of asbestos are recognized but in the same time swept away since they can be controlled. This second struggle led to cognitive and normative residues. The use of asbestos has to be quasi-scientific. It is not dangerous if it is properly used. Investigations can determine the dangerous fibres responsible of deceases. The issue is to determine the good

practices to use asbestos that is still an irreplaceable material. With the rhetoric of change, texts are fairly reinsuring and professionals of asbestos can be trusted.

During this period, the actions are rather inscribed in rhetoric battles. The defenders of asbestos defend their position with advertisements, lobbying, the publication of a book, the organization of conferences to inform about “truth” and “untruth”. Meanwhile, following the public scandal of Amisol, some scientists denounce the dangers implied by the use of asbestos, and sometimes protest with a cynical tone as it is illustrated by the publication of an influencing pamphlet against asbestos. These opposed positions push the government to adopt a consensus: the ban of flocking. This decision is surprising and appears relatively permissive in comparison with some other countries which decided to entirely ban asbestos.

Period 1983-1992

The variations between the period 2 and the period 3 indicate an optimization momentum. The main actions are linked with management: what is the best organization to constrain a proper use of asbestos? The issue of studies and investigations is no longer prevailing (the use of “medical” for example has declined). The most expressed actions are “decide”, “prescribe”, “legislate”, “manage”. This is corroborated by other categories, like “managerial discourse”, “bureaucratic” or “maximisation/preference”. The field is organized around the CPA that appears to be a central entity. They can prescribe the best practices to reconcile both economic interests and protection of workers. Whereas the previous period was projective and tended to foster investigations, the scientific dimension of the field in this period appears secondary. There is rather a determinist dimension: “workers need to do...”, “we should ...” as if everything were known about asbestos.

The CPA appears as a normative organization that gives stability to the field. It bridges economic interests (the category of market logics has almost tripled) with protection of workers.

The CPA also produces some shared beliefs, legitimating the asbestos as long as there is a central entity that can control, prescribe and ensure stability.

Concerning the actions during this period, it is extremely interesting to observe that none of them intend to disrupt the use of asbestos. From the past subversive actions, the only persisting dimension is the use of scientific studies to define the proper employ of asbestos. This normative constraint finally became a reason to pursue the use of asbestos which is guided by scientific recommendations. To that extent, the asbestos defenders exploit these existing norms to create a regulative organism called the CPA. This organism constitutes a formidable device to maintain the use of asbestos, mainly guided by scientists and industrials. To that extent, between the action 38 and 39, there is a long period (5 years) of inaction. The struggles in the field are concentrated in a closed organisation. In that way, the divergences in the field remain in a private sphere and are not covered by the media.

Period 1992-1998

The last period is particularly interesting. It shows the re-emergence of concepts that were preeminent in the first period. Asbestos is associated with cancer again. The case of Amisol is used in certain texts like a past echo that conveys the long history of asbestos contestation. The word “study” is much more used. The controllability of asbestos is no longer taken for granted.

This period, like the first one is a period of contestation, which is attested by the multiplication of trials. The main actions expressed in this period are “to constrain” and “to accuse”. What is taken for granted has to be “unveiled”.

Some actors are presented as responsible for the deaths and future deaths provoked by asbestos. In the categories of markers, “causality” has more than doubled.

The logic is now far from being managerial. On the contrary doubts from the past are reactivated. Ecologic and biologic discourses emerge. Actions are situated in time, such as “today”, “now”, ... which indicates the awareness of the dangers of asbestos and the wish to change things.

As regards the actions during this period, it is interesting to notice that new momentums of actions against asbestos emerge from an unpredictable event: the death of workers, and as a consequence the complaint of their widows. The re-emergence of questioning has generated a renewed interest by a series of neutral actors, and led to the reopening of investigations. The CPA did no longer appear credible and self-dissolved. In this context, the ANDEVA is

created, which represents a strong institutional impact: asbestos became a national problem, and the juridical responsibility of the government and asbestos industrials was questioned. These criticisms turned asbestos into the national enemy number one, and led to a series of actions which eventually put and to the use of asbestos through regulative decisions.

Overall analysis about actions and deinstitutionalisation

Figure 2 and the calculation of Chi² for different variables lead to several significant remarks.

Centrality

First, we can note that there is a link between the institutional impact of an action which causes maintenance and the centrality of actors ($K\chi^2=15,7^*$, $p=0,015$). Actors whose actions tend to maintain the use of asbestos are central. As we defined the concept of centrality, central actors are those who participate to the daily life of the institution, that is industrials, workers, and then organizations like ANDEVA. We can see that actors who are necessary to the survival of the institution (centrality =1) mainly produce maintenance effects. This result shows some surprising peculiarities. Central actors in the field are firms that produce asbestos (and in a second time, firms that use it), it seems to be natural that these actors aim at maintaining the use of asbestos. However, we also coded asbestos workers as central. In this case, the link between their centrality and the maintenance of the practice isn't obvious. This result points toward a crucial distinction between the position of the actors, their intentions, and the consequences of their actions. In the process of deinstitutionalization of asbestos in France, we can note that in the first years of the process, workers weren't conscious of the danger of asbestos. Thus, they actions did not aim at banning the practice. Indeed, there was a real fear of unemployment. Moreover, the lack of information and the institutionalized "controlled use of asbestos" created confusion and led actors to resignation.

Second, data show that there is not a significant relationship between an action which causes institutional change and the centrality of actors ($K\chi^2=2,4$, $p=0,3$). This result confirms the widely accepted thesis that peripheral actors can also produce actions that cause deinstitutionalization.

Agency

The analysis of Chi² suggests that there is no link between the type of agency and the institutional impact of an action. Contrary to our expectation, neither projective agency nor practical agency lead to significant institutional change. This result illustrates that institutional change can be a consequence of routines. This accounts for the role of a series of actions in the process of deinstitutionalization which merges intentional and unintentional actions. As an illustration the social scandals that broke in the 70^s, were a consequence of a combination and succession of actions. First, Amisol workers began a strike to obtain reopening of the firm. At the same time, Jussieu created a committee because of surprising peculiarities linked to the presence of asbestos in the flocking of the University. In Amisol, only after 31 months of strike and several deaths, the media began to cover their story and described their working environment. Then, some professors from Jussieu went to Amisol and explained to workers the risks linked to asbestos exposure. The meeting between Amisol and Jussieu led to the emergence of a public issue around the question of asbestos. This scandal implied the reactions of firms (especially Eternit) and the intervention of the government to ratify the compromise of the “controlled use of asbestos”.

Process of maintenance

Figure 2 illustrates a puzzling phenomenon regarding institutional maintenance. In spite of the Amisol scandal and a public controversy covered by the media, only few laws are voted to increase the protection of workers. While there are some cognitive and normative changes around the use of asbestos, the regulative pillar is fairly stable, except some progressive adjustments relative to the level of exposition. To that extent, the efforts of maintenance achieved by asbestos industrials illustrate their capacity of absorbing crisis and avoid the propagation of changes to the three pillars of the asbestos institution. It is surprising to note the coexistence of contradictory institutional elements. While asbestos is associated with disease, death, caution, the regulative pillar does not reflect the normative and cognitive pillars and authorize, without significant constraints the use of asbestos.

This phenomenon also illustrates a different pace between the evolution of the three pillars of an institution, which leads, at a particular time, to significant gaps between norms, values, ways of thinking and laws.

Besides, the defenders of the asbestos institution keep a relative authority in the field. The CPA, mainly led by industrials and scientists, is able to silence critics against asbestos for more than five years, even after the public scandal of Amisol. It illustrates the ability of powerful actors to cope with the pressures in their environment. Their main strategy of institutional defense relies on the protection of the regulative pillar. They do not directly struggle against evolutions in norms or ways of perceiving asbestos, but tend to accept critics and show that the existing regulative frame is compatible with these changes.

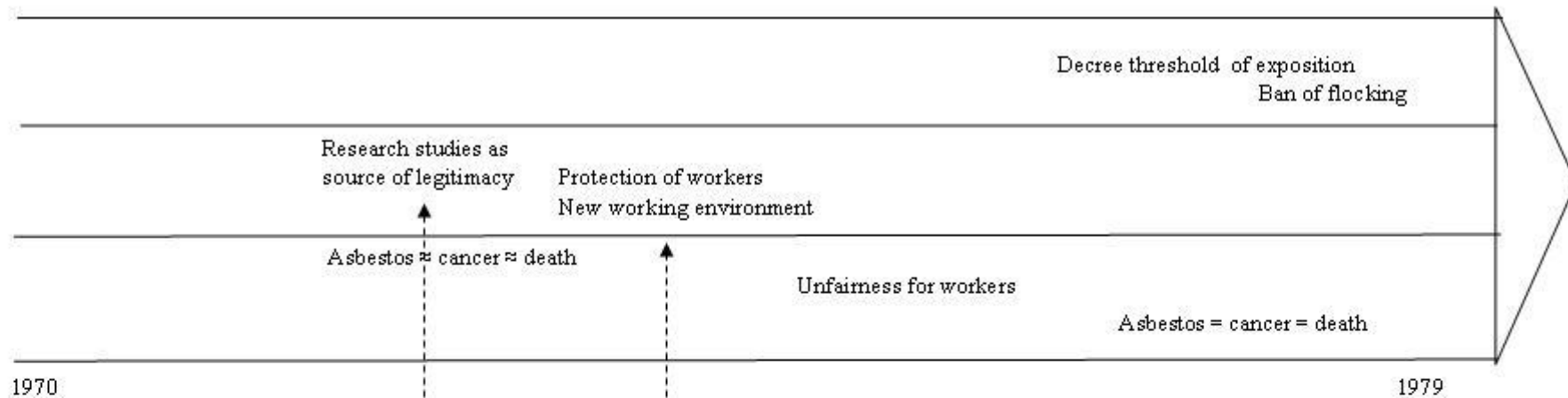
Intentionality and neutrality

We can notice through the chronology of actions and their impact on institutions that many institutional actions achieved by neutral organizations have a significant impact on institutions ($\text{Khi}^2=4,43$, $p=0,035$). This result is quite counter-intuitive, and shows that neutral organizations (that is organizations which have no interests in particular institutional arrangements) play a significant role in deinstitutionalization. For exemple, the publication by the INSERM of a report has been a pivotal action, leading to a public rejection of asbestos. Yet, this organization do not defend particular interests, and is considered as a neutral expert. The government can also been considered as a neutral actor, whose decisions were taken from scientific reports. Yet, some decisions had some pivotal impacts on the asbestos institution, whether on the regulative, normative or cognitive pillars.

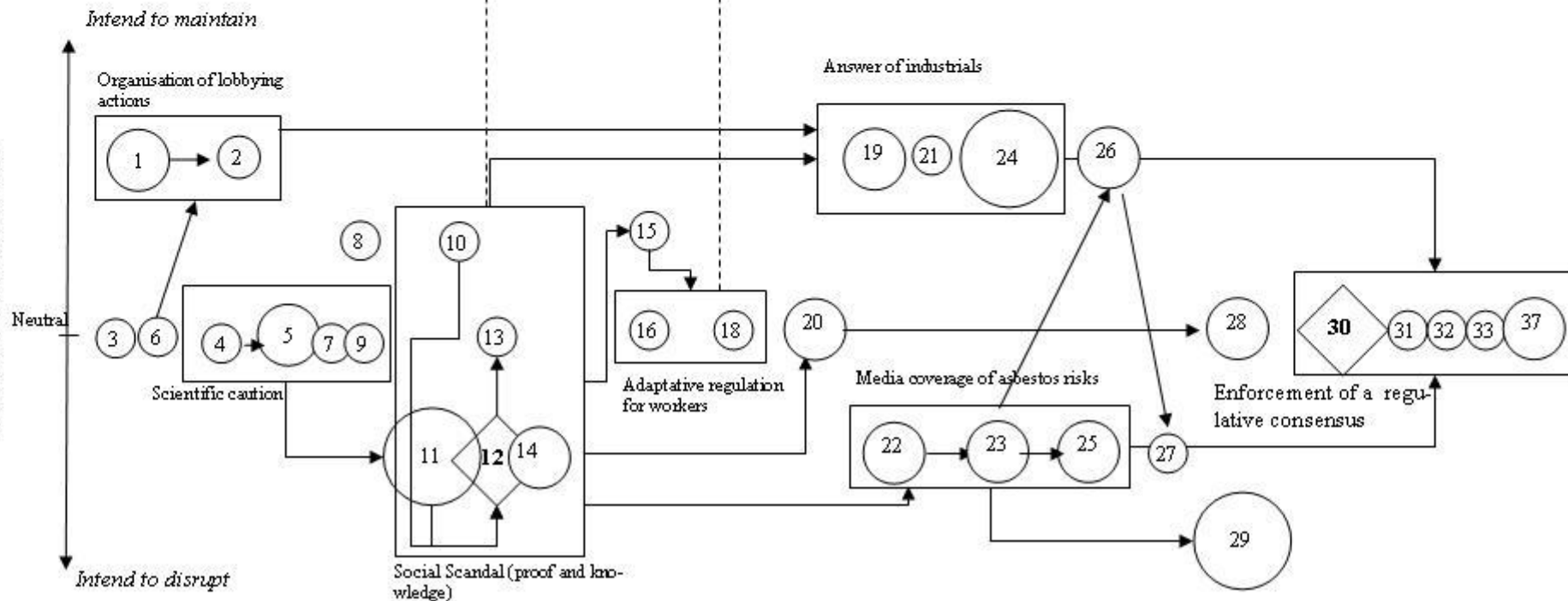
Thus, our results support the hypothesis that the actors with decisive actions, could be those who are not engaged in the process of deinstitutionalisation as an actor who have interests to disrupt or to maintain the practice.

This importance of neutral actors may be due to their legitimacy in the field. Their actions have all the more impact as they are considered as neutral by the other actors in the field. However their role must not be overemphasized. As we can see on figure 2, their actions are fostered by other actions in the field. They may have a strong impact on institutional pillars, but these consequences also indirectly depend on other actors in the field.

- Institutionalized elements**
- Protection of workers
 - Limitation of dust exposure
- Normative**
- Global use (wine, cigarettes, buildings...)
 - Complete legitimacy of asbestos industry
- Cognitive**
- Safeness
 - Necessary (boats, buildings, army)
 - Can save life (protect against fire)
 - Economic issue



ACTIONS



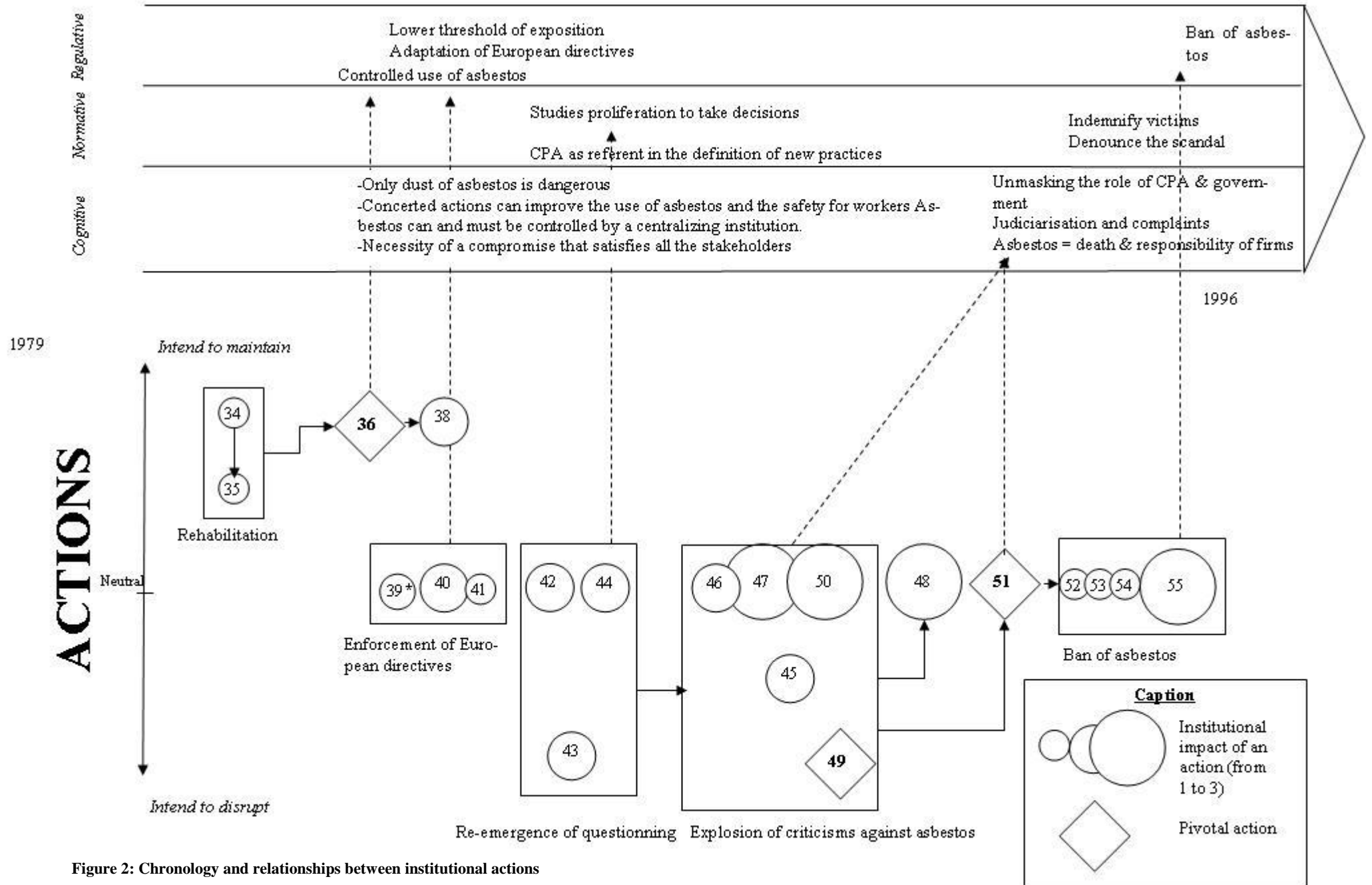


Figure 2: Chronology and relationships between institutional actions

Discussion:

We assume that institutional work is dynamic and inscribed in a momentum - that is an energy associated with a common inspiration. Jansen (2004) distinguishes *statis-based momentum* and *change-based momentum*. In both cases, actors' efforts are inscribed in a specific path and course of actions.

This finding encourages us to continue with an in depth analysis to find determinants to understand this asymmetric situation. Indeed, even if all types of actors are able to change institution, we have reason to believe that there is link between the centrality and the intensity of the change. This result should explain the result presented above. We support the idea that there is a continuum between change and maintainance. We can think that the a better sensitivity of the analysis can lead to results.

Expected contributions:

In this paper, we study deinstitutionalisation process, which has rarely been tackled in institutional theories (for exception, we can refer to Maguire and Hardy *forthcoming* ; Oliver 1992). It is yet a fundamental and specific dimension of institutional life. Moreover, the case of asbestos in France is a particular process without a unique and decisive jolt, contrarily to most of the studies about institutional disruption.

As a theoretical contribution, we emphasize the role, and finally the significance of individuals' actions at the micro-level. Most actions are not vain, and may contribute to a slight change that will eventually participate to the precipitation of the institution. Deinstitutionalisation is viewed as a cumulative process, not a disruption essentially provoked by a jolt.

Besides, we emphasize the question of the aim of the actors engaged in an institutional work. Disruptive or defensive work have unintended consequences that can lead to the destruction of the practice. We explore differences between the aim of actors, who are engaged in an institutional work, and the consequences on the institutional pillars.

Our study relies on Van de Ven and Poole's methodology. It allows us to focus on the micro level of deinstitutionalisation, which provides an interesting level of analysis. We expect to

characterise the actions that constitute institutional work in order to understand which types of actions can destabilize institutional pillars.

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