Information Management and Business Review (ISSN 2220-3796)
Vol. 14, No. 1, pp. 25-35, March 2022

A Systematic Policy of Misinformation on the Toxicity of Asbestos: Lobbying as Key Component of a Major Health Crisis

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Abstract: Asbestos is one of the most-deadly occupational carcinogens on the planet. Its toxicity has been proven by scientific studies conducted for several decades, including for people who have never worked in industries directly related to asbestos, or who have massively used it. The serious diseases and deaths caused by asbestos have provoked a major health crisis which has led to significant media exposure and then to resounding trials of victims and families of victims claiming compensation. The article aims to underline that if the toxicity of asbestos has been known for a long time, the manufacturers of the sector have succeeded in protecting their activity thanks to a policy of misinformation driven by powerful lobbying companies. The interest of the asbestos health crisis is to underline that the tools used for misinformation can counter, over a long period of time, the most relevant scientific arguments seeking to establish the reality of the facts. From a methodological point of view, secondary data were collected from official reports and minutes of meetings of lobbying companies, including meetings of the Asbestos permanent committee (*Comité permanent amiante*, or CPA) in France. The study contributes to a better understanding of the mechanisms of misinformation to fight for several decades the scientific evidence from several hundred medical publications.

Keywords: *Asbestos, Asbestos permanent committee (CPA), Crisis, Lobbying, Misinformation.*

1. Introduction

It would take a long time to list the multiple health scandals that we have experienced in recent years, especially in the world of food products. For example, in 2008, spoiled or expired Italian cheeses were sold throughout Europe after being recycled; in 2013, chocolate pies were contaminated with fecal matter in Ikea stores; in 2014, various listeriosis intoxications due to a deli product; in 2017-2018, the large-scale contamination of Lactalis milk; or in 2022, about 40 cases of hemolytic uremic syndrome following E.coli contamination of Buitoni frozen pizzas. For each of these health crises, as we learn from the literature, a "crisis communication" had to be organized –more or less urgently– to reassure an anxious population (especially when children were affected), among other things by intensive use of social networks (Eriksson, 2018). The main characteristic of all these crises is their relatively short duration, of the order of a few days or a few weeks.

To cope with them, they rely on very reactive communication strategies. Their mission is to limit the negative impact of an event on the reputation of an organization, in other words, to overcome an exceptional period to reduce the negative effects on its image. The situation is different with one of the most significant and painful public health crises that France, but also Italy, experienced after WW II: the asbestos crisis, for which the International Labor Organization's count is 100,000 deaths per year worldwide, most often after atrocious suffering in the case of pleural cancer. In France, 35,000 deaths were recorded between 1965 and 1995 (Dériot & Godefroy, 2005), and since then, each year, between 2,200 and 5,400 cancers, and between 1,600 and 3,800 deaths, are recorded by the *Institut de Veille Sanitaire*. What is sometimes called the "killer fiber", as do Rossi & Didiot (2012), certainly attacks workers in direct contact with the mineral.

But also, multiple people, including children and adolescents, attend public places normally without history (high schools, universities, in particular). One of the most important scandals of the asbestos crisis, especially for its victims, is the silence in which it was deployed until recently. It was not until the 1990s that awareness emerged about the proven toxicity of the mineral, for example with the monumental removal of asbestos from the Jussieu campus, in the center of Paris, or the removal of asbestos from the Berlaymont, the building housing the European Commission in Brussels. This is a very late date, admittedly, which raises questions for many observers. Indeed, as early as 1906, in the *Bulletin de l'Inspection du Travail et de l'Hygiène Industrielle*, Denis Auribault, a French factory inspector in Caen, described the first cases of fibrosis with his "Note on the hygiene and safety of workers in asbestos spinning and weaving mills" (Auribault, 1906). His observation is

unambiguous: "*In 1890, an asbestos spinning and weaving factory was established in the vicinity of Condé-sur-Noireau (Calvados).*

During the first five years of operation, no artificial ventilation ensured direct evacuation of the siliceous dust produced by the various looms; this total disregard for the rules of hygiene caused numerous deaths among the personnel: about fifty male and female workers died in the above-mentioned period" (quoted by Dériot & Godefroy [2005]). However, the ban on the use of asbestos in France did not come into effect until 90 years later. The explanation lies in a strategy of misinformation led by manufacturers wanting to protect their market and taking advantage of the media's lack of interest in a technical issue considered of little interest to the general public (Henry, 2003). Based on secondary data analysis, this article aims to highlight the hidden dimension of the asbestos health crisis: the intense policy of misinformation led by the manufacturers of the sector, relying for that on a long-term strategy of lobbying. It is a remarkable example of the manipulation of public opinion.

Because despite the millions of deaths caused by asbestos, misinformation has been able to continue, even by "organizing silence" with the implicit agreement of the Authorities, as was the case in France with the Asbestos permanent committee (*Comité permanent amiante*, or CPA). The article is organized in two parts, after a brief presentation of the methodology. In the first part, the main historical facts concerning asbestos are underlined, indicating that the mineral had an exceptional industrial and even cinematographic success before a growing number of works finally demonstrated its toxicity, which will be for a long time the object of denials. In the second part, the roots of these denials are identified through the policy of misinformation, the dramatic result of which was to slow down the prohibition of the use of asbestos in Western countries, and for the moment to prevent its prohibition in many countries.

2. Methodology

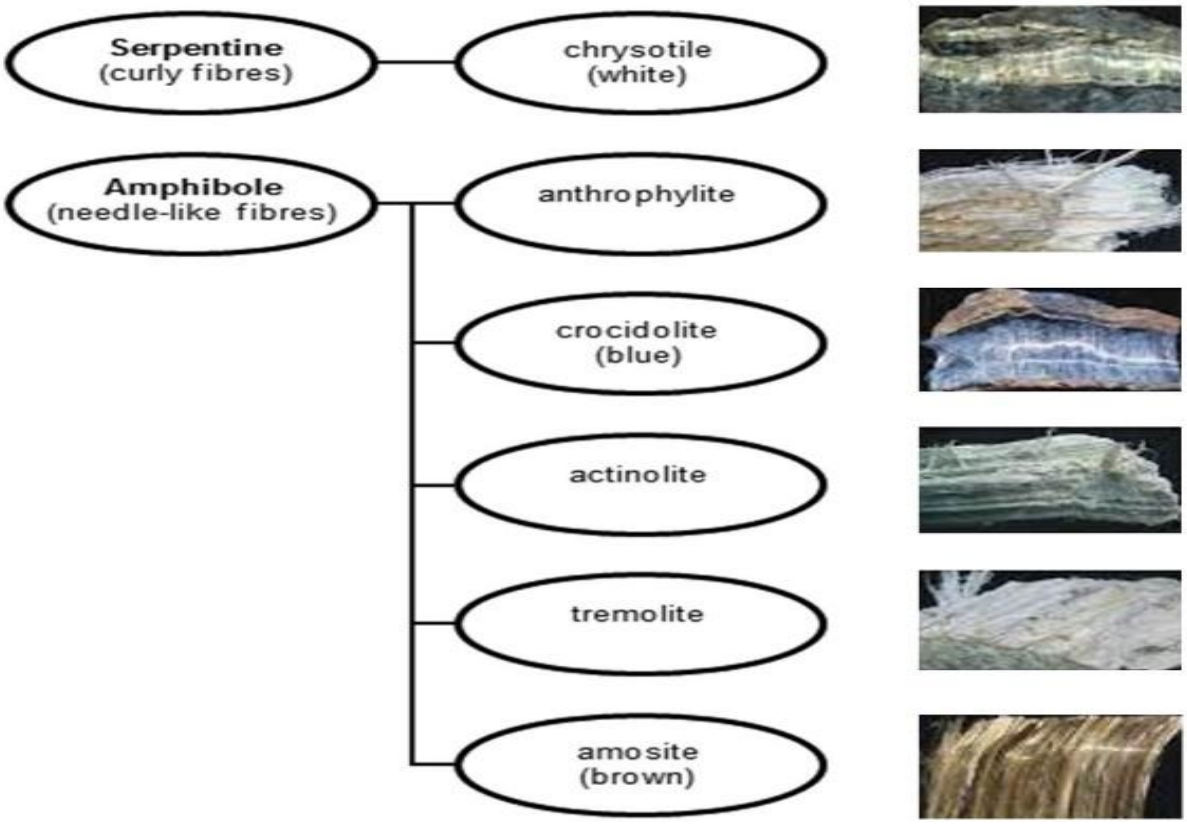
To better understand the mechanisms used by companies in the asbestos sector to conduct a misinformation policy over several decades, the study relied on two types of secondary data: internal secondary data and external secondary data. The first data are usually available within different organizations (activity reports, archives, etc.); the main source used in the article is all the minutes of the meetings of the CPA in France, available on the Internet website http://www.sante-publique.org/amiante/cpa/cpa.htm (in French). The second type of data was obtained from general or specialized information centers, research centers, professional federations, etc. The author, the son of an asbestos worker, also used confidential documents kept in his family on the Eternit company, in particular information letters on the supposedly exaggerated dangers of asbestos for health. These documents were arranged in a thematic hierarchy, distinguishing between general documents on the asbestos industry, specific documents on misinformation policies, and documents on the accumulated scientific evidence on the toxicity of asbestos. Secondary data analysis has been widely used for the past 40 years, particularly in nursing research (McArt & McDougal, 1985), and it is now recognized that it is particularly rich material for retrospectively analyzing decision-making processes when the actors are no longer available for the collection of primary data.

3. Fall and Decline of Asbestos

The history of asbestos is strongly linked to that of the 20th century and the triumph of industrial capitalism, even if the origins of its use are much older. In one century, asbestos will go from the status of "white gold" to that of "killer fiber" in three successive stages (for a historical overview of asbestos extraction and uses, see Franck [2006]). The first stage is that of the rise in power, from the beginning of the 1900s to the aftermath of WW II, because of its exceptional qualities of resistance to fire, heat and electrical or chemical aggression. The second stage is that of its apogee which corresponds to the "Thirty Glorious", the diffusion of asbestos ignoring then all its consequences on the health of the individuals. The third stage starts at the beginning of the 1980s and corresponds to a "controlled", more thoughtful use of the mineral, but faced with the toxicity finally recognized of asbestos, the decision to prohibit its use is presented as the only way out. In brief, it is possible to speak of the fall and decline of asbestos.

Glory Days: Asbestos is a fibrous mineral of the silicate family, also known as asbestos. It is grouped into two families; the amphibole group and the serpentine group, each of which has several minerals (see Figure 1). Asbestos has been known since ancient times, as the earliest evidence of its existence is explicitly found in the writings of the Persians, Greeks, and Romans (Kakoulli et al., 2014). These people used asbestos for ritual purposes, being convinced of its magical properties. Specifically, they wrapped the deceased in it before cremation to obtain finer and lighter ashes. In his work *Naturalis Historia*, Pliny the Elder (23-79 AD) mentions the custom of making asbestos funeral shrouds for kings. Another use reported by the same Pliny the Elder concerns the exceptional sound absorption properties of asbestos, already known at the time: before cutting down a tree, the Ancients placed an asbestos cloth around the trunk to muffle the noise caused by its fall.

Figure 1: Classification of Asbestos Minerals



Later, in the Middle Ages, asbestos was also called "salamander's wool" insofar as the famous reptile, according to a popular belief, would have its body covered with asbestos and could therefore brave fire without burning itself, its use for textiles woven with asbestos finds its roots there (Brown, 2003). For his part, Marco Polo mentions asbestos in his *Book of Wonders*: according to the explorer, it is used in the Chinese province of Chingitalas to make valuable tablecloths. Around 1600, the use of asbestos was even commonplace in certain medical preparations. For the physician Boethius, the mineral would be very useful to treat ulcers but also to cure children of scabies (Harris, 2009). In fact, the use of asbestos in medicines will be –incredibly and dramatically– in vogue until the early 1960s, being used in particular to make an ointment to combat foot perspiration and a paste for dental fillings. In Ancient times, asbestos came mainly from Cyprus, Greece and the Italian Alps, but important deposits were discovered in the Urals in the 17th century. However, it was in the 19th century, in 1878 to be exact, that the most important deposits were identified in Quebec, paving the way for a powerful asbestos fiber processing industry whose development was to be absolutely "meteoric". The latter is linked to its specific properties of resistance to traction and corrosion by acids and chemical agents in general.

But also, its resistance to fire, which allows excellent thermal and electrical insulation. The versatility of asbestos, combined with the low manufacturing cost of its transformation, plays a key role in its use, a mineral that will eventually be exploited over time for the creation of more than 3,000 products for the construction, transportation and industrial sectors. In the construction industry, asbestos is used for roofing industrial buildings, pipes, tanks, joints, walls and ceilings, and the production of panels. In transportation, asbestos is used in clutch and brake systems for automobiles, heavy trucks and trains. In industry, it is used in the production of packaging, paper and cardboard, floor coverings and fireproof textiles for theater and cinema furniture. In addition, asbestos, a fiber considered by some to be "miraculous" and described as "white gold" is also widely used in textiles and cosmetics: blankets, aprons, jackets, pants, gloves, boots, powders, foundation, special talc for children, shoe soles, sanitary towels, among others. As for the young July Garland in the *Wizard of Oz*, few people know that during a poppy scene in the movie, she is covered with snowflakes, which are actually chrysotile (see Figure 2) (Harmetz, 2013).

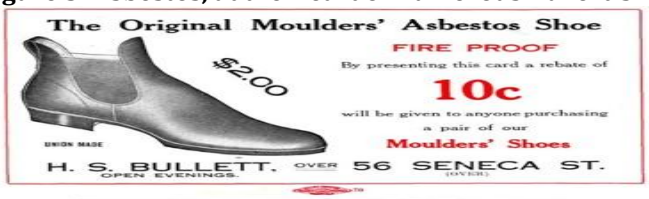
Figure 2: Use of Asbestos in the Wizard of Oz

(https://fibresafe.com/the-demise-of-asbestos/, Accessed March 11, 2021).

The success of the company's activities can be traced back to the first part of the 20th century, sometimes taking advantage of windfall effects. Thus, in 1903, after a dramatic fire killed 83 people, the flammable materials in the Paris metro were replaced by products containing asbestos, which was already being used in the brakes of the trains. Across the Channel, a similar replacement was carried out in the London Underground, then in 1932, it was the insulation of the prestigious Queen Mary liner which gave rise to massive use of asbestos. There is no doubt that the media echo given to these events will encourage the general public to have an excessive –and blind– trust in asbestos, which was quickly used on a large scale without really attracting any contestation. In short, one can speak of a real golden age during which the warnings of the French factory inspector Denis Auribault seemed to be little heard, and which gave rise instead to a series of advertising campaigns whose existence seems today to be very dubious on the ethical level (see Figure 3).

Early Concerns about Health: The strongest symbol of this golden age is undoubtedly the triumph of the "eternity", a material also known as asbestos cement, which is characterized by its remarkable lightness while maintaining a high resistance to wear and corrosion. Often used to make pipe and roofing elements because of its isothermal qualities, it is a special mixture invented by the chemist Ludwig Hatschek in 1900 which, over time, took the name of fiber cement. Fiber cement, or eternity, is a mixture of asbestos and fibers whose consistency gives the material its main characteristic, namely its extremely fibrous character, which makes it very suitable for various uses, especially in public works and construction. It is also the name of the cement company of the same name, founded in 1922 (now owned by the Belgian Etex Group), which registered the trademark and produced the material for decades in various industrial sites, notably in Italy and France, including the dramatically famous Casale Monferrato factory in Piedmont, at the origin of the Italian maxi-trial of Turin in charge of judging the "safety crime of asbestos" (Marichalar, 2019), with more than 6,000 civil parties, and which will have no equivalent in other countries.

Figure 3: Asbestos, at the Heart of Numerous Advertising Campaigns

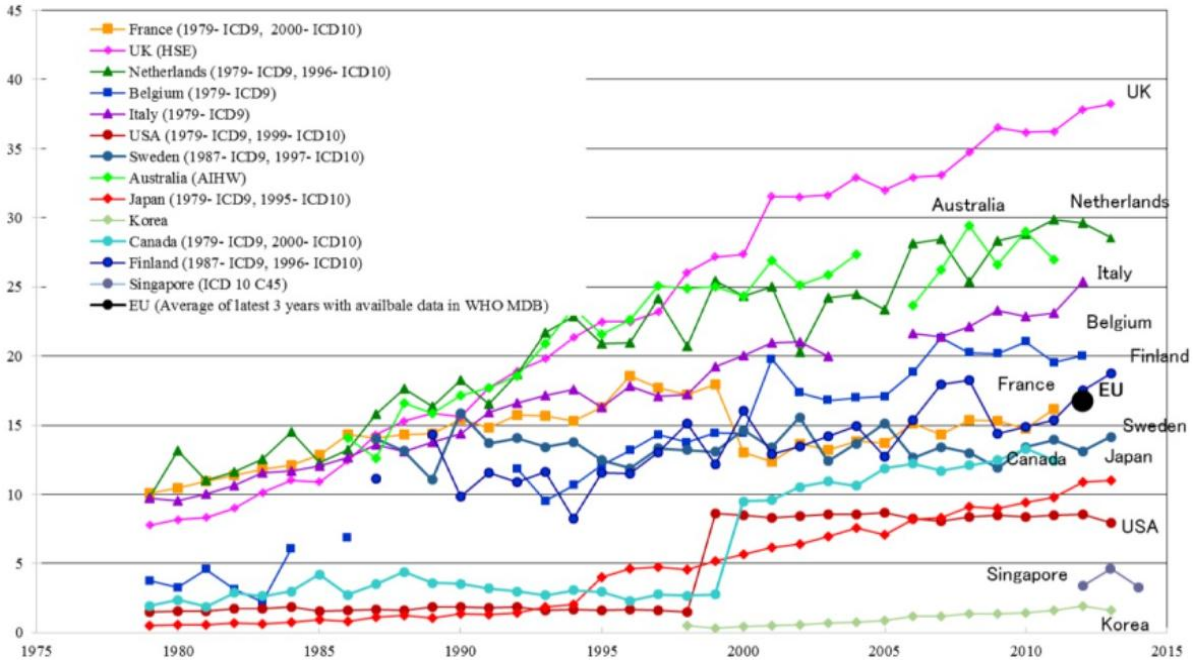


(https://www.suva.ch/fr-ch/la-suva/100-ans-suva/amiante. Accessed April 16, 2022).

The name eternit, which comes from the Latin *aeternitas* (eternity), was first patented in 1901 and the brand was bought in 1902 by a merchant, Alois Steinmann, who opened the first production unit in Niederurnen, Switzerland, the following year. The Swiss businessman Ernst Schmidheiny inherited the Eternit company and, in 1907, the Casale Monferrato factory was inaugurated. It became the largest fiber cement production site in Europe, with more than 5,000 employees at the height of its glory. In 1915, the famous Eternit planter boxes appeared on the market and soon became one of the main elements of urban furniture in European cities. To perfectly control the oligopolistic market, Ernst Schmidheiny created in 1929 the cartel *Internationale Absestzement AG*, with the British asbestos multinational Turner & Newall, extending to the fiber cement producers what he had already achieved before the war in the cement and brick sectors (Catrina, 1985). After WW II, the Eternit company became extremely popular and visible, especially with its corrugated sheets used for the construction of hundreds of thousands of warehouse roofs and industrial sites. Trust in fiber cement grew so much that it was used massively throughout the "Thirty Glorious" for the construction of pipelines and aqueducts to bring drinking water to European homes. No limit seems to appear in its use. However, voices are beginning to be raised to underline the toxicity of the material, notably in the United States, following the study of Selikoff et al. (1972) on 18,000 individuals indicating that the risk of lung cancer is 4.6 times higher in asbestos workers.

When it degrades, it tends to flake off and turn into a very fine powder that can have serious health consequences if inhaled. Indeed, inhalation causes not only asbestosis and lung cancer but also a disease called pleural mesothelioma, a particular and very aggressive form of cancer of the pleura discovered by Paul Klemperer and Coleman Rabin in 1931. If we consider, moreover, that the effects of asbestos and its fine dust have an incubation period that can last more than thirty years, specialists of the disease estimate that the deaths due to the diseases linked to the inhalation of fine asbestos dust, but also of fiber cement, will not stop for decades. Sixty years after the note of the French factory inspector Denis Auribault, the truth about asbestos-related diseases such as pleural mesothelioma is now coming to light, while a wave of lawsuits is sweeping the courts around the world, particularly in Italy, leading governments to restrict the use of asbestos and fiber cement. Work conducted by Furuya et al. (2018) confirms that pleural mesothelioma mortality due to asbestos continues to increase in most countries surveyed (see Figure 4). However, it was not until the 1990s that the sales of the Eternit ended in Europe (early 1997 in France) while continuing in many other countries around the world, including Brazil and Russia. Thus, while concerned scientists and physicians revealed the toxicity of the mineral as early as the 1960s and 1970s (Mossman et al., 1983), political decision-making did not follow. Why did this happen? Undoubtedly because of the powerful strategies of misinformation and lobbying carried out by the asbestos industry, which will seek in particular to "sell doubt", to use terms of Oreskes & Conway (2010).

Figure 4: Number of Mesothelioma Deaths per Million Inhabitants (Furuya et al., 2018).



4. Two Facets of a Misinformation Policy

Misinformation is traditionally presented as a communication process that consists of using the media to transmit partially erroneous information with the aim of deceiving or influencing public opinion and leading it to act in a certain direction (desired by the organization that originated the misinformation) (Volkoff, 1999). In the case of propaganda implemented by a State, a lobby or a multinational company, the misinformation is conscious and planned, but is exercised with the complicity of the media according to their degree of independence. The mechanisms of misinformation are of three types: (1) distorting the initial information or presenting it by telling only part of the truth, the one that goes in the direction that one wants to defend; (2) giving certain information importance and a weight that is much greater than its real weight; and (3) denigrating or casting doubt on the statements of experts that go against the erroneous information transmitted to deceive or influence public opinion. The asbestos crisis confirms the presence of a policy of misinformation over several years.

The Power of Lobbying: Cement companies continued to produce fiber cement for several decades, dispersing asbestos dust in their factories and wherever the material slowly crumbled, even though they ultimately weighed only a limited amount in direct and indirect industrial employment. In the mid-1970s, in France, the number of employees of the Eternit company, the largest operator in the sector, was thus 5,600 employees spread over 8 factories (Hardy-Hémery, 2005), at the same time as the de Wendel steel group employed more than 50,000 employees, before the steel crisis led to a significant drop in employment, particularly in Lorraine (Raggi, 2015). The reason for the continued production of the "killer fiber" is to be found in an exceptional capacity to exert influence on the political system, rather than to be innovative by radically changing strategic behaviors. The asbestos industry has taken advantage of the weak regulatory environment in developing countries to sell asbestos.

It denies the presence of early weak signals, such as the refusal of US insurance companies to ensure asbestos workers in 1918, even demonstrating a kind of "*negationism*", to use the harsh words of Finet & Giuliano (2012) about the Eternit company. The asbestos lobbies, in perfect symbiosis with the logic of cartelization that manifested itself in the late 1920s at the initiative of the Eternit company, collectively maintain close relations with the governments of Russia and India in particular, to protect the sales of the "killer fiber". In the past, the asbestos industry propaganda was particularly intense in Quebec, given the economic stakes for

one of the world's largest asbestos exporters, but as Ruff (2017) notes, the misinformation strategy was successfully countered some 30 years ago, resulting in the "defeat" of the Canadian asbestos industry. At present, however, three associations are pursuing fierce lobbying in different parts of the world:

- The International Chrysotile Association (ICA). It operates mainly in developing countries where asbestos is still commonly used, trying to block use bans whenever they are considered. The ICA funds study instilling doubt, modeled on the tobacco industry, and lobbies policymakers based on economic considerations. In 2016, for example, the ICA succeeded in having asbestos-containing mine waste excluded from the ban on the processing and selling of asbestos in Canada, a country historically sensitive to the issue.

- The Chrysotile Association of Russia (CAR). Russia is the world leader in chrysotile mining, and this association is one of the most ardent defenders of this highly toxic mineral, part of the serpentine group (see Figure 1). Its objective is to maintain a "dialogue" between the Russian government and mining giants such as Uralasbest. As asbestos exports are a multi-billion dollar source of revenue for Russia, the CAR seeks to protect these profits and ensure that asbestos continues to flow to developing countries, which is unlikely to be curbed by European sanctions following the attack on Ukraine in February 2022.

- The All-Pakistan Cement Manufacturers Association (APCMA). Its purpose is to lobby on behalf of the asbestos industry in India, one of the world's largest consumers after Russia. The APCMA receives funds from the industry to disseminate biased "scientific" studies. One of the most significant paradoxes is that the association acknowledges the number of asbestos-related deaths in the West while claiming that it does not cause disease among Indians. The APCMA's lobbying efforts may have played a key role in the failure of proposals to ban asbestos in the country in 2011 and 2012. The case of India is particularly interesting to understand the power of the asbestos lobbies. About 30 Indian companies continue today to manufacture asbestos-based products for insertion in roofing, wall panels and piping, and since asbestos mines are officially closed in the country.

Asbestos is imported from abroad, mainly from Russia and Kazakhstan (more than 400,000 tons per year). The asbestos industry in these countries benefits from powerful lobbying that is well funded, having allowed it, for example, to infiltrate an anti-asbestos movement by paying an informant more than 500,000 euros to obtain valuable information. Trade unions and NGOs are calling on the Indian government to recognize the dangers of asbestos, but the government regularly asserts that there is no conclusive evidence that asbestos factories or asbestos products used in buildings are toxic. The precise number of people who are ill from asbestos exposure is unknown because of the lack of reliable data, and many physicians do not know the precise symptoms of the diseases involved. The power of asbestos lobbying is also evident in the United Nations-backed Rotterdam Convention.

In theory, the Rotterdam Convention should better protect people from the risks associated with chemicals and particularly toxic substances, thanks to the so-called "prior informed consent" procedure that limits international exchanges. Unfortunately, this agreement, which entered into force in 2004, has a major design flaw that renders it virtually worthless operationally (Ogunseitan, 2015). In order for a pesticide, or other hazardous substance, to be listed in Annex III of the Rotterdam Convention, a consensus among the contracting parties is required. This means that a single country can block inclusion. For example, Russia, Kazakhstan and India, as well as other countries, are preventing the trade in asbestos from being subject to minimum information requirements, despite a clear recommendation on the matter from the Technical Committee of the Rotterdam Convention.

The Case of the CPA in France: One of the most complete examples of manipulation through a strategy of misinformation to safeguard the fiber cement industry is that of the CPA, created in 1982 by the French Asbestos Association, which groups together the main manufacturers of the sector (acting in this case as "financiers of the committee"). The informal character of the organization, without any official status, is one of its most remarkable features, as is its influence on political decision-makers. Indeed, the CPA deals with public health problems related to the presence of asbestos in public and private buildings, to the point of

directing years of sanitary policy in France in this matter. Its composition is symptomatic of a will to lead a policy of "co-management" in the *reasoned use of asbestos*, rather than its prohibition since one finds there besides the manufacturers of asbestos, representatives of the principal trade unions, having the objective of defending employment, but also officials of various ministries (of which that of labor and that of health) and some scientists.

One of the most interesting points to highlight is that the CPA, comprising about 20 people, is directly organized and managed by one of the main managers of a French lobbying and corporate communication company. Communications Economiques et Sociales (CES). From a logistical point of view, this company provides most of the CPA's operating resources. It hosts the CPA in its Parisian office, it publishes all the publications, and it is the person in charge mentioned above who runs the working meetings. Thus, as Henry (2005) rightly notes, while the CPA is perceived as a meeting place for professionals in occupational risk prevention to establish a constructive dialogue on the issue of asbestos, it is a lobbying company in the service of the sector's manufacturers that controls its governance and explicitly guides the debates. One can imagine that the important role played in the setting up of the CPA by the Institut National de Recherche et de Sécurité (INRS), an organization attached to the French Social Security, explains the vision of scientific neutrality that emerges, at least at the very beginning of the meetings, which leads to the adherence to the opinions of the CPA on the part of many social partners.

From September 1982 to September 1995, the CPA met about a hundred times, until the representatives of the various ministries and trade unions decided to stop sitting. Thus, signing its death warrant and preluding the ban on asbestos by the Juppé government of President Chirac at the end of 1996. It must be recognized that the CPA has endeavored to disseminate incomplete information, based paradoxically on an increase in the number of expert reports, but whose distorted or contradictory conclusions have for years distilled more doubt than certainty (Umbhauer, 2010). Even though it was confronted with a major public health risk, the dramatic nature of which could no longer be denied, the French government was unable to rely on a neutral body to provide it with the data it needed, especially to analyze the potential use of substitute products and thus to program, with ad hoc accompanying measures, the cessation of all use of the "killer fiber". The French State has undoubtedly found a certain interest in the controlled use of asbestos, as conveyed by the CPA.

According to a real approach of "organized silence" (Peton, 2011), associated punctually with misinformation operations with the dissemination of "true-false controversies" by manufacturers. It is important to point out that the CPA's capacity to cause harm goes far beyond French borders & extends to other geographical areas. Thus, when the USA envisaged in 1986, through international organizations (International Labor Office, Environmental Protection Agency), to ban the use of asbestos, the French representative intervened to issue a negative opinion, based on the critical analysis by the CPA of a technical report of the International Labor Office. The negative opinion is argued as follows in the minutes of the CPA meeting of March 26, 1986: "*The authors of this report are not well known and do not seem to have any specific expertise in the field of asbestos. The bibliography is not exhaustive. This study does not provide any new data. The data used in the program have not been discussed. The correlation between measurements from very different models can only lead to uncertainties. In the opinion of the scientists, this document cannot be recognized as a study based on indisputable scientific data. It is an incomplete report on the current knowledge of asbestos-related pathologies*" (taken from the Internet website http://www.sante-publique.org/amiante/cpa/extraits.htm, Accessed May 26, 2021). Five years later, when the European Community was considering an outright ban on asbestos (under pressure from Germany), the CPA again engaged in intense lobbying to prevent any prohibition, supported by the Quebec government.

5. Discussion and Conclusion

A well-known expression indicates that "facts are stubborn things". We could add that the studies conducted on the toxicity of asbestos have been just as stubborn since the end of the 19th century. Thus, as early as 1899, Dr. Henri Montagne Murray diagnosed in London, in a worker who had worked in an asbestos mill, pulmonary fibrosis of mysterious origin which attracted his attention. This diagnosis was followed in 1906 by a note from the French factory inspector Denis Auribault, mentioned several times in the article. From then on, scientists began to study the causal links which, step by step, left no doubt as to the extreme toxicity of

asbestos. In 1930, Dr. Victor Dhers, in Lyon, published a statistical study on the harmfulness of asbestos in the French journal *Médecine du Travail*, and thirty years later, Wagner et al. (1960) caused a sensation by highlighting the causal relationships between mesotheliomas and exposure to asbestos among South African miners. The top managers of the companies were not unaware of this work, and from this point of view, their behavior can be qualified as "criminal", in the legal sense, and not just "wrongful" (Paraciani, 2016).

Key Findings: The established historical facts make it surprising that many stakeholders, including trade unions, have been organizationally blind for decades. Is this organizational blindness *really* surprising? In conclusion of this overview of a health crisis whose end is far from being seen (maybe in 2060 in Western countries?), the main elements of understanding the situation are available for researchers in management. The dangers of asbestos have been known for a long time; they have been documented by a growing number of indisputable scientific works since the 1960s and 1970s. If a heavy –organized– silence reigned in many countries, the origin of this silence must be found in a strategy of misinformation, including the one conducted from 1982 to 1995 by the CPA, which we will describe as particularly remarkable. Seznec (2014) does not hesitate to evoke the "deadly effectiveness of the CPA", which could serve as an archetype of manipulation in all business ethics courses in business schools.

If the asbestos tragedy has already given rise to abundant literature, the time has come to dig into the organizational springs that have allowed the denial to survive for nearly 40 years. It would also be important to evaluate the persistence of the asbestos health crisis on the deteriorated image of the companies in the sector. As Pinyochatchinda (2014) underlines, the environmental damage that a polluting-industry cause remains in the collective memory of a population for a long time. This results in a deep and lasting alteration in the trust that individuals may have in an organization and its various stakeholders. In the case of asbestos, especially in France, the Authorities did not play the game of regulation, leaving the CPA free to proceed to an "institutionalized misinformation". One can fear that this culpable failure will not be forgotten in a hurry by the families of the victims, sick or deceased, most often in terrible suffering. In conclusion, research on this topic seems important to better understand the long-term negative impacts of decisions based on the search for maximum short-term profit.

Policy Implications: As the article points out, the influence of lobbies can have a deep impact on the health and well-being of millions of people around the world. To increase their revenues, multinational companies sometimes use harmful chemical ingredients, and the individuals who come into contact with them do not have enough information about their level of toxicity. It is up to the State to intervene to inform and protect its citizens, but politicians are influenced and financed by lobbies and the general interest is then neglected because public action is thought in reference to the next elections. However, there is a slow improvement in awareness, but many questions remain concerning the relationship between lobbies, Authorities and citizens: is coordinated legislation at the global level possible? Is it possible to dissociate long-term political action from short-term electoral deadlines? Within the framework of economic liberalism, how can we impose coercive rules that go against the freedom to organize exchanges? These questions are at the heart of public action, and the answers must be rigorously studied by conducting complementary work.

The most important observation is undoubtedly the way in which a policy of misinformation has been pursued for several decades based on a coherent discourse constructed by the companies in the asbestos sector. They developed a kind of *cognitive framework* that allowed them to imagine a reasoned use of the "killer fiber", based on precautions of use. Rather than discrediting the opponents, the companies sought to minimize the dramatic effects of asbestos use, based on controversial scientific opinions. To better fight misinformation, it is essential to encourage coordination between Authorities, NGOs and academic institutions to develop strategic communication. In general, misinformation campaigns do not limit themselves to the punctual dissemination of false news; they develop a misleading narrative to make a profit. It is this narrative that must be combated as soon as it spreads, not after it has succeeded in manipulating the masses. Thus, NATO actively fights against misinformation with programs that quickly analyze the information in circulation, especially online, and detect the weak signals of misinformation. In brief, the speed of reaction of the public action is undoubtedly the key element to avoid new health crises like the asbestos crisis.

Acknowledgments: The author sincerely thanks two anonymous reviewers of the *Information Management & Business Review* for their insightful comments and suggestions on the first draft of the manuscript.

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