

Presentation on the Sudbury Soils Study

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Title: Relations of Risk's Definition and (Potential) Definitional Struggles: The Sudbury Soils Study

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What is gonna be the use, in the end, if the study is truthful and nobody believes it or pays attention? (Homer Seguin in Sudbury Star May 14 2003, reproduced on www.minesandcommunities.org)

Introduction

Since I am a sociologist - an expert of social relations - and not a biologist, a chemist or an expert on risk assessment, I would like to talk about the social dimension of the Sudbury Soils Study (SSS). In fact, I would like to explain why this study is contested by various actors and make one general hypothesis about the possible evolution of its contestation in the near future.

In the first part of my presentation, I will contextualize the SSS by explaining that it is evolving in a more or less democratic risk society. The idea is quite simple. In democratic risk societies, risk assessments usually produce relations of definition and definitional struggles between key actors with different cultures and interests. The only significant variable in these societies is the intensity of the definitional struggles. Some struggles being more intense than others depending on factors such as: the role of activists and organizations, the media coverage, the level of mobilization of the population, the reactions of the managers of the risk assessment, the governments and corporations. In brief, the level of intensity of definitional struggles depends on the social relations between all these interdependent actors.

In the second part, I will try to quickly explain why this soils study has the potential to lead to intense definitional struggles in the area of Sudbury.

1. Why is it contested? Risk society, relations of risk's definition and definitional struggles

The SSS has raised skepticism, criticisms and debates since its announcement in 2001. Experts and managers of risk assessment are often surprised by these reactions. They usually associate criticism against their work to irrational factors and a lack of information,

expertise and(or) good faith.

From a sociological perspective, all these criticisms are not surprising at all, and they are not simply irrational. Why? Because we now live in what Ulrich Beck called the *risk society*. In brief, it means that industrial society and techno-science have produced new risks such as: global warming, nuclear power, the depletion of the ozone layer and key resources, and the contamination of soils, the air and the water. These new risks affect our health and life at different levels and we need to know how dangerous they are and what action we should take to protect ourselves. In this new world, the definition, management and distribution of risks are becoming more and more crucial for all of us. Of course, it creates new debates and conflicts. As U. Beck wrote:

‘in advanced modernity the social production of wealth is systematically accompanied by the social production of risks. Accordingly, the problems and conflicts relating to distribution in a society of scarcity overlap with the problems and conflicts that arise from the production, definition and distribution of techno-scientifically produced risks.’ (Beck 1992: 19)

The new risks of this society – our society – are usually invisible and cannot be defined by relying on common sense knowledge and past experiences. In this respect, *science* and *experts* play a crucial role in the definition and management of new risks. But even if science and experts are still significant to make socially accepted knowledge claims, ‘knowledge is not restricted to science but includes everyday knowledge of lay-people, citizen groups, organizations, and societal institutions, often mediated by the media’ (Zinn 2008: 26). This decentralization of knowledge is partly caused by the fact that science and experts have lost part of their legitimacy in the XXth century. Techno-science is seen as being part of the solution and the problem at the same time, partly because techno-science has produced the new risks that people have to face today. Therefore, even if we still heavily rely on their works to understand the risks, and their management, in the eyes of many people experts cannot provide a neutral, consensual and clear representation of the risks and their acceptable levels. Techno-science is seen as closely connected to the source of the problem: industrialization.

What does it mean for us, here and now? It means that risks do not exist only as objective phenomena described by experts. Of course they do exist for real most of the time, and experts still describe them. However, risks are *socially constructed* through *relations of definition* (of risks) involving more than experts. The definition of the risks related to the contamination of the soil, for instance, starts with the reports made and diffused by the SSS and its experts. This diffusion creates reactions from various actors in the community, such as trade union representatives, farmers and new organizations such as the Community Committee on the Sudbury Soils Study. Through a process of interaction, reactions arouse questions and critical comments from the director of the SARA Group who is defending SSS’s perception of risks; and these reactions create other reactions, and so on. This social

process of relations of definition - which turn out to be a *definitional struggle* - is not exceptional. Once again, this is common practice in democratic risk societies. Through social relations various actors, coming from different backgrounds and with different interests, try to influence the definition of risks, usually by relying on scientific arguments and methods. In these social constructions of risks, science is generally all over the place. This is often the favorite tool used by the actors to convince their audience that they are telling the truth. The problem is that these days the new risks are very complex because:

- They refer to various levels of risks (low, acceptable, not acceptable...) which are not only 'objective' and are therefore usually socially contested. The acceptability of one risk depends partly on subjective factors such as the culture and the interest of the actors. (Do we accept to let children play in contaminated soil if we think that as long as they do not eat the soil it is relatively safe?) Levels of acceptability cannot be simply scientifically imposed by neutral experts to parents, workers, etc. They are constantly negotiated through relations of definition – at least in a democratic society.
- Various risks interact with each other and it becomes difficult to establish scientific knowledge based on relation of causality. (If the rate of cancer is higher in Sudbury, is it caused by the contamination of the soil or - also - by other factors such as life habits? How can we prove that one specific cancer is caused by this or that factor? How do we calculate the cumulative effects on health of the accumulation and interaction of different substances without underestimating them? Do we have enough knowledge to make these calculations? How do we deal with contradictory scientific explanations? How do we deal with different norms adopted by different experts and organisms? When do we start to study on health? Do we include ex-miners or do we focus only on people living in Sudbury today? Etc.)

If one adds to the complexity of these risks the fact that ordinary people do not have the resources (time, money, knowledge, etc.) to analyze these risks by themselves, and that they are dependent on knowledge produced by other actors (experts, governments, corporations, etc.) who do not necessarily share the same culture and interest, we can understand pretty easily why it is quite normal that risk assessments are contested and lead to definitional struggles. In this sense, it is better to say that risk assessments are usually more or less contested. This is the norm as far as the social dimension of risk assessment is concerned. Therefore, the challenge is not to produce 'perfect' risk assessments which do not create any criticism, but to produce relations of definition which lead to an acceptable level of (democratic) struggles. Efficient relations of definition can potentially lead toward the adoption to a generally assumed consensus about: i) the definition of risks, ii) the amount of risks to be taken, and iii) the action that should be taken when it is decided to reduce the risks.

In conclusion, the SSS was, is and will continue to be contested. In itself, it shows that it is conducted in a democratic risk society. The real question is more the following: what is the

level of intensity of these definitional struggles? Is it acceptable or 'normal' or too high? I think the future legitimacy of the SSS will be determined by the social relations between key and interdependent actors such as experts, politicians, mining companies, trade unions, journalists, environmentalists and mobilized citizens.

2. What kind of definitional struggles can we expect in Sudbury?

It is always very precarious to make predictions about social relations. Human beings are not like plants, many animals, rocks or planets. They are not simply and blindly determined by external factors. Mainly because human beings are social, conscious and emotional animals, their actions and reactions usually resist to any 'scientific' predictions based on variable-analysis one can find in natural science. They are more or less unpredictable. However, social scientists can identify some theoretical tools and social patterns which allow us to make statements such as: 'Until now, when have seen this type of social process between these types of actors, this or that phenomenon quite often happens... So, if we prefer to avoid this phenomenon it might be wise to avoid building this type of social process.' In this respect, I will dare to make the following statement: Considering the structure of the SSS and what we have seen until know, this Study has the potential to lead to intense definitional struggles in a near future. An extended and deeper sociological research project should be performed to confirm the relevance of this hypothesis. However, at this point at least five interrelated reasons justify this preliminary statement.

2.1 The SSS is connected to strong emotions (such as fear, frustration and mistrust) and values (such as private property)

By evaluating the risks on health related to the contamination of soil, the SSS is connected to mobilizing emotions and values. It means that many people become easily concerned by this risk assessment for emotional and cultural reasons. Parents and grandparents, for instance, are worried about their children and grandchildren. They want to know if Sudbury is a safe place to raise their (grand)sons and (grand)daughters. They want to know if it is safe to let their children play in the park or in their backyard. They want to know if they should grow tomatoes in their garden and let their children eat them. They want to know if local food at the downtown market is safe or not. By raising these questions, they scare local producers who start to fear that they will not be able to sell their products. These concerns, worries and fears have been already expressed many times in relation to the SSS. Two brief examples:

- In March 2004, by noting that 'Nickel giants *Inco* and *Falconbridge Ltd.* are paying for the study', the Sudbury Star (reproduced in www.minesandcommunities.org) reported that a 'new Sudbury woman is puzzled as to why Sudbury's drinking water

isn't tested for the presence of nickel, as it is for other minerals of concern such as copper and lead.' The article also reported that 'Reed said research she has obtained shows that Sudbury has the highest level of nickel in its drinking water in the world. The information also says that nickel can be a carcinogen or cancer-causing agent. Reed's information comes from the *Agency for Toxic Substances and Disease Registry*, an agency of the *U.S. Department of Health and Human Services*.' According to the journalist, these comments were made at the public session of the Sudbury Soils Study's technical committee at Tom Davies Square.

- In June 2008, citizens expressed their concerns and fears in an article published by *Northern Life*. Kim Johnson is raising her three-year-old granddaughter in Copper Cliff. She wondered if she could get her soil tested. 'Clearly, there is a risk in this locale.' 'What about families that can't afford a soil test?' 'How will you ever know if it's detrimental for your family?' Duane and Lisa Bradley also live in Copper Cliff. 'I'm just worried about the children playing in the sand,' said Duane. 'Is it harmful to the children? I always take my daughter Briana to the park. She makes sandcastles. If she has a cut and gets sand in the cut, will that be a concern?' (Reproduced in *Republic of Mining*, 16th June 2008)

Many Sudburians are also concerned about the value of their property. If it eventually turns out that their property is too contaminated or perceived as such, and if nothing is done to fix this problem, the value of their house could be reduced significantly.

The power of these emotional and cultural factors depends partly on how the SSS and its experts are perceived by the population. Do people trust the results or not? If the results are not trusted, it makes sense to think that many people could be more easily mobilized against the SSS. In May 2006, the local newspaper *Northern Life* revealed the result of its own poll about the Study. Their question was clear and simple: 'Do you feel assured by the results of the Sudbury Soil Study?' The result was: Yes, 31.13% and No, 68.87%. (*Northern Life* website) This poll was not a scientific one. But it probably shows that there is some significant discomfort or mistrust about the SSS.

2.2 Activists and contesting organizations

In terms of the intensity of this definitional struggle, these facts mean that many individuals could be more or less easily mobilized by activists and contesting organizations such as trade unions and environmental groups. These activists and organizations have been active since the beginning of the SSS. And they are still active. Let me give some recent examples:

In October 2008, under the umbrella of a new group called the *Community Committee*, various actors also denounced the SSS in clear and simple ways by referring to a counter-report prepared by a pollution watchdog, *Environmental Defence Canada* (See www.environmentaldefence.ca). John Fera (president of *Local 6500 Steelworkers*) declared that 'The process has been dominated by the companies who are responsible for the mess'. Brennain Lloyd (*Northwatch*) said: 'We need the Ontario Government to help the public formulate a response to the Soil Study. The Ecological Risk Assessment has yet to be released, and we don't want another green-wash.' Rick Grylls (president *Local 598 Mine Mill*) added: 'It is not acceptable to exclude the extra health risks for the 25-35,000 current and past workers in Sudbury. The community has to decide the acceptable levels of risk and what should be done to deal with the problems.' Monique Beaudoin (Health promoter for the *Centre de santé communautaire de Sudbury*) also added: 'the francophone community and the community in general have the right to information in their language and to the tools and resources that will allow them to participate effectively in the Ecological Risk Assessment. The environmental health of our community is at risk and the public has a right to be fully informed and to determine the level of risk it is willing to live with.'

If these activists make the right strategic moves and use the right words by building one efficient collective action frame, if they manage to connect themselves to the emotions and the values of many citizens, they could create a local movement against the SSS. The emergence of this movement also depends on the actions and reactions of other actors such as the politicians, the media, local food producers and the experts of SSS.

2.3 The politicians and the media

To my knowledge, no politician has reacted to the worries of the citizens and the actions of activists so far. However, with newly elected left-wing politicians in Northern Ontario (including in Sudbury), it would be surprising if these politicians would stay passive if activists manage to get some success in terms of social mobilization and media coverage.

As far as the media are concerned, two temporary conclusions can be made at this point. First, local media are highly interested to cover this story. Therefore, it is not difficult for the activists to get their attention and to diffuse some of their messages to the public. Second, it is possible that local media might start to be sympathetic to the activists and the concerns of some of their readers and fellow citizens. In one of its recent editorials, *The Sudbury Star* recommended to the city council to assure more leadership:

So, given that two studies using the same data have produced such different conclusions, what are Sudburians to do now? The answer to that lies partly in another recommendation made in the *Environmental Defence Canada* report: let

Sudburians decide. It's a job that should be led by city council, perhaps through a mayor's task force, to bring all the parties – ordinary citizens, scientists, labour and environment ministry staff, the mining companies and union leaders – together to decide what to do. The provincial ministries, by the way, should pay for the task force's work. (www.thesudburystar.com/ArticleDisplay.aspx?e=1267096)

Here, there is no doubt that the SSS and its experts are not seen as the only actors who should define the risks and the acceptable levels of risks. Environmentalists, trade unions, governments, mining companies, experts, etc. are seen as key actors. More important in terms of mobilization, it is expected that politicians should assure more leadership in order to protect and involve the public. These signs might reflect an emerging and more intense definitional struggle.

2.4 The role played by the mining companies

If there is one risky factor which could eventually lead to an intense definitional struggle, it is the crucial role played by the two mining companies in the SSS. Vale Inco and Xstrata (or Falconbridge Ltd.) have financed the study, collected the samples, participated to the Technical Committee as full members with the right to vote (with veto right in fact since the decisional process is a consensual one), etc. I think adopting this structure was a mistake from a sociological perspective. It was a mistake if one wants to avoid a potential intense definitional struggle. It is very difficult for activists and citizens to trust this type of soil study when two major players are in a situation of conflict of interest. As external spectators, it is very difficult to trust experts who are paid by the main polluters and who work with these powerful companies. Therefore, it appears to me that by giving these roles and this high visibility to the mining companies, the SSS took one big risk in terms of trust and social mobilization. Managers and experts took the risk of placing themselves in a vulnerable position where activists, citizens, journalists and politicians do not need much cause to raise critical questions and to be worried.

It does not mean that we can accuse the experts of doing a poor job or of lying to the population. To my knowledge, there is no proof to support these types of accusations. But again as Homer Seguin said in May 2003: 'What is gonna be the use, in the end, if the study is truthful and nobody believes it or pays attention?'

2.5 Reactions from the managers of the Study

The actions and reactions of the experts of the SSS also play a major role in the emergence or the non-emergence of an intense definitional struggle. Their actions and reactions can contribute to build positive or negative relations with activists and citizens, and therefore they can affect the level of intensity of the definitional struggle. There are many examples showing the good will of and an open-minded attitude from experts

associated to the SSS. I would suggest that these reactions have contributed to avoid a clear negative struggle until now. However, and more recently, some signs of impatience and maybe frustration from experts have been seen in the media. I will give some examples:

One process observer for the study declared in May 2008 (by noting that union representatives were present at the technical committee meetings): 'If I had seen any arm twisting by the companies I would have gone straight to the press. I did not.' (Reproduced on Northern Life.ca)

In October 2008, the Community Committee on the Sudbury Soils Study criticized the SSS by relying partly on a report produced by Dr. Kapil Khatter. The credibility and the good faith of Dr. Khatter were quickly questioned by the director of the SARA Group who was defending the legitimacy of the SSS: 'I am especially frustrated that Dr. Khatter did not contact us directly. Now he is travelling outside of Canada, unreachable for three weeks. How convenient.' 'I have never heard of Dr. Khatter or his work. As a scientist I am used to peer review, but we have not been given any facts from Dr. Khatter.' (Northern Life 28th October 2008, reproduced on Republic of Mining's website)

These reactions might intimidate or infuriate some activists and citizens. I can understand these reactions and how it can be frustrating for experts to have to deal with negative critiques coming from external actors which may have some superficial knowledge about the SSS and its methods and procedures. However, considering the emotional and cultural dimensions of this study, and considering the fact that the trust towards the SSS seems to be low, I think any oppositional reaction is a risky strategy if ones wants to avoid an intense definitional struggle.