

Gabriela Di Giulio (2012)

**Risco, ambiente e saúde: um debate sobre comunicação e governança do risco em áreas contaminadas**

São Paulo: Annablume/Fapesp, 390 p.

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Debates around environmental and public health legislations have resurfaced in Brazil in the last months of 2015 following the bursting of a dam in Mariana, in the state of Minas Gerais. As toxic mud made its way down the river and into the Atlantic Ocean, debates concerning risk management and responsibility took centre stage. In this context, Gabriela Di Giulio's book shows its relevance as it expertly tackles issues concerning risk management and responsibility. Her book focuses on appropriate risk communication, and her main argument concerns the need for a good level of engagement among risk assessment research teams (which analyze potential consequences of a disaster), official institutions and particularly the local population. Significantly, the author contends that efficient risk management requires interdisciplinary risk assessment teams that evaluate quantitative as well as qualitative consequences in their work.

Additionally, and perhaps more emphatically, Di Giulio argues for the need of an inclusive and democratic management process that engages with the population affected and takes their local knowledge and concerns into consideration.

In *Risco, ambiente e saúde* Di Giulio uses a wide variety of data to contrast and compare four detailed case studies of lead contamination in Latin America, three in Brazil (Adrianópolis, Santo Amaro, and Bauru) and one in Uruguay (La Teja). By means of numerous interviews with the local affected community, local authorities, journalists and researchers, as well as analyses of media material, Di Giulio paints a vivid picture of each case. These cases were chosen as they had been researched by official risk assessment teams that evaluated the contamination from a medical geology perspective, a discipline which integrates medical and environmental fields in

public health studies. These cases were also widely publicized by mass media, which allowed Di Giulio to draw on her journalistic background and use the 'social amplification of risk' framework, which contends that the way a risk is understood can be dramatized or attenuated depending on how it is communicated to consider the impact that risk communication has on risk perception and management.

The book has a familiar structure, it can be divided into three general sections. The first presents the rationale and context, followed by the case studies and results. Lastly, it presents the discussion and conclusion. Using the first two chapters to set the scene, the following four chapters are each dedicated to one of the case studies. The first three are the Brazilian cases – particularly useful as the author compares them to one another and draws out their similarities, which Di Giulio does well in her discussion chapters. In the Brazilian cases she points out a pattern of populations affected by lead contaminations, demonstrating environmental issues as being socioeconomic in nature as well. The populations affected are generally of lower socioeconomic background, which is particularly clear in the case of Adrianópolis and Santo Amaro, which have a lower Human Development Index (HDI) score than the rest of the region. The author evidences a more interesting pattern of how these cases develop: contamination usually results of little-to-no environmental legislation and industry

control, followed by a non-inclusive and primarily quantitative risk assessment carried out by an official team. Mass media then intervenes at the moment of communication as it narrates, at a national level, what happened in each of these places and the research results.

In her discussion chapter dedicated to the role of media, Di Giulio addresses particularly well the impact of communication on risk perception. It does so, firstly, as it communicates the very existence of a risk, thereby crystallizing it as a problem within the community. She takes this analysis a step further by showing the negative consequences of dramatized risk communication as it decontextualizes the results of research for sensationalist purposes, and therefore develops a stigma around these communities, which are then perceived as permanently ill. This stigma has a long-lasting effect as the rest of the population refuses to interact with those they now perceive as "damaged", and even the local community starts perceiving itself as such. The author nicely illustrates this in the case of Adrianópolis where, after the media publicized the contamination, people began to avoid the region and refuse to buy produce cultivated in the area fearing poisoning.

The Uruguay case, the contamination of La Teja, provides the author with some contrast to the Brazilian cases. Despite some similarities in context, the Uruguay case evidences the impact that local populations can have on risk

communication and management. Contrary to the cases in Brazil, La Teja inhabitants organized themselves and created a residents' association after a local boy fell ill due to lead intoxication. As this commission swiftly acquired legitimacy with its hundreds of members, the local community demanded that risk assessments be carried out. It also provided the residents of La Teja leverage to negotiate with the official institutions that came to evaluate and manage the situation. One example is the relocation of 450 families who were living in contaminated areas to new homes.

This residents' commission, Di Giulio argues, is a phenomenon that did not take place in the three Brazilian cases. Despite attempts of some form of organized citizenship, they did not acquire sufficient momentum or local engagement. With regard to this difference in national approach, Di Giulio briefly proposes that this could be a consequence of the Brazilian military dictatorship and the fact that a democratic spirit may still be "under construction"<sup>1</sup> (88). Meanwhile, in Uruguay, the residents of La Teja consisted of European migrants, some of whom were self-proclaimed anarchists (including the leader of the residents' commission). I believe this is one of the most poignant arguments Di Giulio presents in her book: the importance of community organizations in its own risk management and the involvement of all actors. However, Di Giulio only hints at the reasons behind this supposedly contextual difference, and

her argument may have been stronger had she developed it further.

Di Giulio's book culminates in a proposal for a protocol to tackle environmental disasters without excluding local residents from the decision-making process. Here, interdisciplinary risk assessment teams would also include sociologists and communication experts and are accompanied by a local representative. Research results and proposals for risk management are discussed at a series of meetings, to which the local population is openly invited. This process, as the author argues, aims to establish trust and collaboration among all parties. The author recognizes the possible shortcomings of this protocol, such as its slower pace for decision-making and its potential costliness. The strength of this proposal, however, comes from its integrated format, which allows a dialogue among technoscientific perspectives and social and local concerns. Di Giulio's work is a prime example of academic work with potential to inform policy-in-practice, which may even contribute to the more recent debates surrounding the dam in Mariana. This reviewer would therefore recommend, if Di Giulio has not already done so, that she writes a policy briefing on the subject to make her proposal more widely accessible.

1 "em construção"