EPIDEMIOLOGY AND CRIMINAL LAW: LIABILITY FOR ASBESTOS EXPOSURE

This thesis deals with the relevance of epidemiology for the purpose of the assessment of criminal liability.

In the light of the delicate relationship between science and criminal law, this thesis could not help but adopt a multidisciplinary and comparative approach, which arises from the <«awareness of the need to break the borders that still divide the different disciplines and distinct systems, which all share instead the need to solve the same problems posed by modern society»>1.

As this work shows, the difficulties are indeed the same and widely defined². The aim is to decipher the "paralysis" encountered by law – especially criminal law – when it is called to cope with the scientific and factual uncertainty that characterises our current historical moment.

The first part of this research thus dwells on the identification of the main, mostly sociological, features of our present. After fleshing out the well-known peculiarities of today's post-modern society, a further important step is necessary. It becomes essential to define the role of science in criminal law, to identify its dogmatic "place", and, even before all this, to understand the fundamental characteristics of scientific knowledge.

This opens up a path that is not yet well-explored in our system and that leads to examine the US experience and in particular the "Frye test" and the "Daubert test". The North American system has been dealing for decades with the role that scientific knowledge can play in the legal order, as well as with the criteria used to assess the reliability of scientific studies within the frame of criminal trials.

At the end of the first part, the second chapter is devoted to the analysis of our "history" and to the problematic implications that the relationship between science and criminal law has had in our system, as this emerges from Italian case-law.

¹ CENTONZE, *La normalità dei disastri tecnologici. Il problema del congedo dal diritto penale.*, Milano, 2004, p. 2. (translation of the author)

² The difficulties are indeed the same and they will be addressed in depth in this work.

In particular, this thesis focuses on the phenomenon of asbestos, as it reflects all the most important issues concerning the link between epidemiology and criminal law.

This second part is thus divided in accordance with the two fundamental trends that have emerged in the case-law: i) the traditional one, where the asbestosinjury is conceived as the event of the crimes of manslaughter and bodily harm; ii) the most recent one – epitomised by the *Eternit* case – where the conducts at stake are dealt with as "risk crimes" (*reati di pericolo*), in order to surmount the problems attached to the notion of "event" in such cases.

In the third chapter, the focus will shift to the US and English systems, whose analysis is essential for the purpose of this study, and consistent with the chosen methodology.

On the one hand, the US system is a fundamental term of comparison, since it has the longest experience in the field of mass toxic exposures. This analysis will try to single out the key components of the US approach, namely: i) the peculiar problems emerged in the assessment of the so-called 'specific causation'; ii) the transition to a form of collective management of 'toxic torts' through class actions; and iii) the challenges related to the peculiar offence known as 'public nuisance'.

The English system, on the other hand, is characterised by the unusual choice of the legislator to introduce the criminal liability of the legal person in case of workplace accidents. This thesis will thus discuss the core features of, and the rationale behind, the so-called 'corporate manslaughter'.

The last part brings together all the issues addressed throughout the research, with the aim to evaluate which are the future perspectives of epidemiology in the criminal process, and which are – *de jure condito* and *de jure condendo* – the solutions to the pressing problems discussed in this thesis.