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as an Application of the Precautionary Principle.
Comparative Analysis
of the Italian Experience**

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Abstract:

“All-or-nothing” rule is still the most used system to allocate damages in tort law. According to this principle, a judge must establish the minimum threshold beyond which causation is established and below which, on the contrary, a right to compensation may not exist. The article argues that proportional liability is a suitable option to substitute the “all-or-nothing” approach, especially in cases of (causal/scientific) uncertainty. The aim is to have a more flexible instrument in pursuing the traditional goals of tort law, i.e. compensation and deterrence, by means of a progressive precautionary approach according to which liability should be proportionally attributed in compliance with developments in scientific knowledge and evidence concerning general causation.

Keywords: Proportional liability; tort law, scientific uncertainty, causation, precautionary principle, “all-or-nothing”.

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Introduction

In this paper, following and developing reflections we have already expressed in another article¹, we claim that there is already a host of proportional liability rules in place in the Italian legal system as a result of contrasting policies accumulated overtime. In our article we also claim that, to date, proportional liability is a suitable option to substitute the “all-or-nothing” approach - especially in cases of (causal/scientific) uncertainty. However, the move towards a more proportional liability oriented approach should consider dangers to the protection of fundamental rights that it might entail and, accordingly, it should provide for procedural safeguards such as the alternate use of joint or several liability along with presumptions and reversal of the burden of proof. Part I elaborates on the notions we employ exposing background information and the role played by differences in criminal and civil procedure, while Part II, in dealing with the issues surrounding proportional liability, elaborates on the state of actual solutions to some theoretical cases - which have been conceived in another publication² - and on the concerned policies. Finally, Part III summarizes the reasons in favour of a reasonable proportional liability apportionment in cases of scientific uncertainty in light of the relevance of the protected interests at stake.

¹ See G. Comandé and L. Nocco, *Proportional Liability in Uncertain Settings: Is it Precautionary? Italian Insights and Comparative Policy Considerations*, in I. Gilead, M.D. Green, B.A. Koch (eds.), *Proportional Liability: Analytical and Comparative Perspectives*, De Gruyter, Berlin-Boston, 2013, 199-226.

² We refer to the above mentioned I. Gilead, M.D. Green, B.A. Koch (eds.), *Proportional Liability: Analytical and Comparative Perspectives*, cit. We used the taxonomy which has been elaborated and exposed there since it seems particularly useful to fully understand several aspects of proportional liability.

Part I. 1. In Search of a Definition for Proportional Liability: Some Legal and Policy Background

Apart from really rare exceptions³, Italian legal literature has not deepened the theory of proportional liability.

Lately, some authors have begun to consider the problems related to the allocation of the harmful effects resulting from a tort, offering a host of different opinions⁴. Generally, these authors share the view that it is necessary to proportion the liability to the causal efficiency of the tortfeasor's negligent conduct. Yet, not only have they not defined in any way proportional liability as such but they have not even mentioned the said expression let alone make reference to the routine arguments generally made in justifying the adoption of this form of liability⁵.

A similar gap may be found in case law that, above all in medical liability, has applied the theory of the "loss of a chance" in pursuing aims similar to those of proportional liability.

Having said that, with the following qualifications, we think it is possible to generally define proportional liability as a kind of liability imposed upon a defendant, who by her⁶ tortious conduct created a risk of harm to the plaintiff, for only a portion of the risk-related loss that the former suffered or may suffer in the future.

Furthermore, the concept of proportional liability might be generally divided into three subcategories, each of which will be further distinguished later, related to instances where:

- i) it is uncertain whether the defendant's tortious conduct was a *causa sine qua non* of the plaintiff's loss;
- ii) the tortfeasor contributed to the loss jointly with others and it is not clear to what extent each individual contributed to the damage;

³ G. Comandé, *L'assicurazione e la responsabilità civile come strumenti e veicoli del principio di precauzione*, in Id. (ed.), *Gli strumenti della precauzione: nuovi rischi, assicurazione e responsabilità*, Giuffrè, Milan, 2006, 66 ff.; L. Nocco, *Causalità: dalla probabilità logica (nuovamente) alla probabilità statistica: la Cassazione civile fa retromarcia*, in *Danno e responsabilità*, 2006, 1238 ff.; M.-E. Arbour, *A proposito della nebulosa. Principio di precauzione-responsabilità civile*, in *Liber amicorum per Francesco Donato Busnelli. Il diritto civile tra principi e regole*, Giuffrè, Milan, 2008, 513 ff.; L. Nocco, *Il "sincretismo causale" e la politica del diritto: spunti dalla responsabilità sanitaria*, Giappichelli, Turin, 2010, 247 ff.

⁴ B. Tassone, *La ripartizione di responsabilità nell'illecito civile. Analisi giuseconomica e comparata*, E.S.I., Naples, 2007; U. Violante, *La responsabilità parziaria*, E.S.I., Naples, 2004; A. Gnani, *Commento sub art. 2055*, in *Commentario al codice civile Schlesinger-Busnelli*, Giuffrè, Milan, 2005; M. Feola, *Il danno da perdita di chances*, E.S.I., Naples, 2004, 121 ff.; F. Parisi, V. Fon, *Causalità concorrente*, in *Danno e responsabilità*, 2006, 701 ff.; R.E. Cerchia, *Uno per tutti, tutti per uno. Itinerari della responsabilità solidale nel diritto comparato*, Giuffrè, Milan, 2009.

⁵ At least not in the terms which are explained in European Group On Tort Law, *Principles of European Tort Law: Text and Commentary*, Springer, Wien-New York, 2005.

⁶ Hereinafter we use the feminine as a neutral way to refer to both male and female individuals.

iii) it is uncertain whether the risk created by the tortfeasor will actually materialize into a given future loss or not.

The above descriptive categorization of proportional liability can identify the cases in which to proportion the risks among plaintiffs and defendants seems opportune, taking into account that this operation cannot be met through the traditional approach of the tort system based on the “all-or-nothing” rule. Yet, the above description does not provide a “definition” of proportional liability nor does it suggest the standard of proof it requires (aspects which we will analyze in the following paragraphs).

Actually, often the courts use comparative fault in using “*de facto*” a “*quasi*” proportional liability rule in an “all-or-nothing disguise” (see below). Indeed, often courts bypass the all-or-nothing rule by using/manipulating other areas of law or the application of one or more rules of tort liability. For instance, this happens by deciding that causation has been established (*i.e.* the standard of proof is considered satisfied, though factually with poor evidence⁷) but damages are reduced “forcing” either the relevance of contributory fault or the use of discretionary powers in setting the actual amount of damages awarded.

The techniques that have been previously described easily apply to all cases where there might be room for the application of proportional liability. This practice of adjusting liability by “playing” with the different elements of tort liability clearly reflects the fact, as we will see, that proportional liability is interrelated with the different elements of tort liability (negligence, causation, and damages) and with other tort related rules such as joint and several liability. The definition of proportional liability should therefore take all these elements into account⁸.

It should also be noted that there is a difference between those cases in which only the specific causation is uncertain (*i.e.* it is uncertain whether the harm is attributable to a specific defendant, though under general scientific knowledge it can be attributable to a certain class of defendants) and those cases in which scientific uncertainty is also general (see below, para. 4).

In the first class of cases (according to which the general causation has been established but the specific one has not) courts are more easily apt (and perhaps willing in several instances, such as

⁷ Basically this operation is performed manipulating extra or metalegal rules or standards such as “common sense”, reasonableness, *res ipsa loquitur*, “*massime di esperienza*” (*Erfahrungssatz*) in evaluating the relative value of a means of proof. See M. Taruffo, *Senso comune, esperienza e scienza nel ragionamento del giudice*, in *Rivista trimestrale di diritto e procedura civile*, 2001, 665 ff.; D.E. Van Zandt, *An Alternative Theory of Practical Reason in Judicial Decision*, 65 *Tulane Law Rev.*, 1991, 777, 792 ff.

⁸ In a sense the operation of proportional liability seems to operate stressing the relevance of the particular facts to manipulate the elements of the liability rule in ways similar to what is proposed under the so-called post-modern jurisprudence with reference to peculiarities of individuals and groups (see for general reference, G. Minda, *Postmodern Legal Movements. Law and Jurisprudence at the Century's End*, N.Y.U. Press, New York-London, 1995).

medical malpractice) to play with different elements of a civil action⁹ so as to reach proportional liability effects in practice. In the second type of cases (characterised by uncertain general causality and uncertain specific causation) we argue that a proportional liability rule should be accompanied by a progressive precautionary approach¹⁰ according to which liability is proportionally attributed in compliance with developments in scientific knowledge and evidence concerning general causation.

2. The Role of the Burden of Proof

It has been previously argued that proportional liability is usually called for when it is impossible to establish, according to the required burden of proof, that the defendant caused the harm, or indeed which specific part of the harm was caused by the tortfeasor, or whether future harm will be caused to the victim by the tortfeasor's conduct.

Therefore, it appears indispensable to analyze the Italian regime of the allocation of the burden of the proof, as well as the most important case law trends on this issue, since it shows how the case law has faced the scientific uncertainties thus far affronted.

Art. 2697 of the Italian Civil Code (hereinafter "c.c.") states that "*The person who wants to assert her rights in a trial must prove the facts which constitute the basis of her action*"¹¹.

Through this rule, the legislator places the burden of being unable to prove her assertion¹² (contrarily to what, as we will demonstrate below, case law has decided with reference to civil medical liability) on the plaintiff.

The flexibility of such a rule is so clear that an authoritative Italian author called it a "*rule in blank*" and even objected to whether it might be considered a legal rule at all¹³.

Over the years, such flexibility has led to quite different probative standards, in line with the objection that a probative rule "*has a merely contingent value, depending on the structure and the function of each legal action*"¹⁴.

The passage from the burden of the proof based on the unwritten rule of certainty (request to prove facts beyond any doubt) to that based on "the preponderance of evidence" (a judgment on

⁹ We specify here civil action because the way judges operate does not differ under a contract law regime and a tort one. Indeed, in Italian law medical malpractice has moved from tort to contract, playing around evidence rules, without much of a change in so far as the proportional liability analysis we perform here is concerned.

¹⁰ G. Comandé, *L'assicurazione e la responsabilità civile come strumenti e veicoli del principio di precauzione*, cit. fn. 3, 66 ff.

¹¹ Our translation.

¹² See G.A. Micheli, *L'onere della prova*, Cedam, Padua, 1966, 6 and S. Patti, *Commento sub art. 2697 c.c.*, in *Commentario al codice civile Scialoja-Branca*, Zanichelli, Rome, 1987, 1 ff.

¹³ See R. Sacco, *La presunzione di buona fede*, in *Rivista di diritto civile*, 1959, I, respectively 1 and 2, fn. 2.

¹⁴ See G.A. Micheli, *L'onere della prova*, cit. fn. 12, 4.

plausibility)¹⁵ has been taking place since the social and economic transformations rendering Italy an industrialized country.

As is well-known, industrialization brings more risks for people, caused by new economic activities, somehow dangerous for human health but socially useful (and consequently permitted)¹⁶. Moreover, emerging (“new”) types of damages (or instances in which damages occur) are often characterized by a difficulty to cope with the burden of proof due to scientific or evidential uncertainties. The difficulties in proving the facts on which the claim is based are fundamental, for example, in damages caused by products: if a user should prove a producer’s fault, pursuant to the general principle of negligent tort liability (Arts. 2043 c.c. and 2697 c.c.), in most cases the victim would not receive any compensation at all¹⁷.

Another example concerning difficulties in proving one’s claim is the case in which, for instance, causation or fault for a specific damage cannot be fully traced to a given individual where several potential defendants can be identified.

In addition, the expansion of the typology of compensable damages (*e.g.* expansion of non-economic damages and health-related damages), has contributed to the significant change to the contents of the burden of proof required to establish liability. In this regard, it has forced a shift from certainty (beyond any doubt) to probability (preponderance of evidence) setting different standards in relation to the minimum proof required to win in a trial.

It is interesting to observe that, according to part of traditional scholarship¹⁸, the rule of certainty was so obvious and universally accepted that it was not even necessary to express it. Obviously, the everyday legal practice at that time only dealt with cases of liability where the existence or non-existence of fault and causation was evident. This measures the distance between those days and today’s understanding of statistical evidence and appreciation.

2.1 Borrowing from the Example of Medical Related Accidents

Against this background, we assume that it is possible to look at medical malpractice as a testing ground of the instruments used by case law to solve the uncertainties due to lack of scientific knowledge.

¹⁵ See G.A. Micheli, *L’onere della prova*, cit. fn. 12, XXIII, expressing himself against the rule of verisimilitude.

¹⁶ See for an overview on the impact of new technologies on tort law, F. Di Ciommo, *Evoluzione tecnologica e regole di responsabilità civile*, E.S.I., Naples, 2003, 113 ff.

¹⁷ On the point, among others, see G. Benacchio, *La responsabilità del produttore*, in G. Benacchio (ed.), *Diritto privato della Comunità Europea*, Cedam, Padua, 2004, 377 f.

¹⁸ See for instance G.A. Micheli, *L’onere della prova*, cit. fn. 12.

In this field, the debate was (and still is) the most vigorous and it concerns mainly the assessment of causation and, to some extent, fault. Both the issue of causation and the area of medical related accidents attracted much attention from legal scholarship since their historical complexity is further complicated by new technologies and scientific developments.

In Italy, some recent decisions – which will be discussed below – have defined the question of causation through an inversion of well-established rules for appreciating proofs¹⁹.

In the last decades, in order to ease the burden of proof for individual causation, particularly in the field of medical malpractice, Italian criminal and civil decisions favoured an approach referring to a simple statistical probability standard²⁰. Nevertheless, the probability standard has been gradually accepted and increasingly lower levels of probability were sufficient to establish causation. However, at least in theory, the rule remained preponderance of the evidence. This process, of course, opened the path to a variety of opinions in case law²¹, which eventually led to the establishment of a simpler rule.

In short, this rule might be summarized as follows: in medical liability, particularly concerning the proof of causation, the principle regarding the certainty about the effects of a conduct can be substituted by the principle of the probability of its effects. In other words, causation was supposed to exist even when the medical conduct, if timely and correct, would have had only serious and appreciable possibilities of success²².

This way, “*de facto*”, both civil and criminal Italian case law accepted the so-called theory of “more probable than not” as a criterion to evaluate the proof offered by the parties.

The decision which brought this issue to its momentum within the limits of this trend, was Cass. 17th January 1992, no. 371²³, in which 30% of probability was thought to be sufficient in ascertaining that the alleged doctor’s tortious conduct was the cause of damages occurred. We must bear in mind

¹⁹ See for an outline L. Nocco, *Il “sincretismo causale” e la politica del diritto: spunti dalla responsabilità sanitaria*, cit. fn. 3, 127 ff.

²⁰ See, recently, B. Tassone, *La ripartizione di responsabilità nell’illecito civile. Analisi giuseconomica e comparata*, cit. fn. 4, 237 ff.

²¹ See *Corte di Cassazione* (Italian Supreme Court: hereinafter: Cass.) 21st April 1977, no. 1476, in *Giustizia civile, Massimario*, 1977, 634, Cass. 13th May 1982, no. 3013, in *Foro italiano, Massimario*, 1982, Cass. 13th May 1992, in *Giustizia penale*, 1992, II, 550; Cass. 18th October 1990, in *Cassazione penale*, 1992, 2102; Cass. 13th June 1990, in *Giustizia penale*, 1991, II, 157.

²² See, Cass. 12th May 1983, no. 4320, in *Rivista italiana di medicina legale*, 1984, 871 and Cass. 5th June 1990, no. 8148, in A. Fiori, E. Bottone, E. D’Alessandro, *Quarant’anni di giurisprudenza della Cassazione nella responsabilità medica*, Giuffrè, Milan, 2000, 656.

²³ The so-called “*Silvestri case*”, in *Foro italiano*, 1993, I, 2331 and in *Responsabilità civile e previdenza*, 1992, 361, commented on by G. Giannini, *La questione del nesso causale, la Suprema Corte e la strana regola del ciò che accade nel minore numero di casi*, and at page 552 commented on by G. Ponzanelli, *Tanto rumore per nulla: a proposito di gazzette e di responsabilità medica*

that it was a criminal trial. Thus, so to say, the “less probable than not” rule to convict a person²⁴ was accepted.

The application of a statistical probability does not contradict the adoption of the model of “scientific causation” – *i.e.* the theory of causation assessment based only on scientific laws or on common sense, provided that it does not contradict science²⁵ –, but in fact it is essential to it. Indeed, all scientific laws have a probability base. Therefore, to demand certainty so as to establish causation would be in contrast with the essence of the model of scientific causation, causing a clear contradiction within it²⁶.

The above conclusion leads to exclude that a counterfactual reasoning needs to be carried out based (only) on universal scientific laws. Furthermore, it would not preclude the enforceability of rules addressed to prevent torts (or crimes) explainable, solely or mainly, through a statistical probability test²⁷.

Italian case law applied the probability principle because limiting medical liability to cases, in which causation may be assessed with certainty, would result in denying medical liability in most cases²⁸. Indeed, if absolute certainty were necessary, no doctor would be condemned even in the case of, for example, death following an appendectomy even though such interventions are considered one of the safest in medicine²⁹. Therefore, special probative conditions to the plaintiff’s advantages are rationally grounded.

The problem, therefore, is in establishing a threshold of probability that will successfully provide for the fulfilment of the requirement of the “*condicio sine qua non*” (but-for causation) test. In other words, is a 51% of probability fair? On the other hand, is a lower percentage sufficient to assess causation?

On this point, Italian case law, both criminal and civil, has always hesitated, alternating its attitude leading to decisions in which the required percentage of probability was over three quarters³⁰ in some case, whereas other³¹ cases required a high probability of success to be adequate proof (*i.e.* preponderance of evidence), disregarding mathematical percentage altogether. In other occasions,

²⁴ Note that this decision was not so clear in motivating this part of this point. Indeed, it was interpreted differently by part of the scholarship as being in line with the principle of “more probable than not”: see G. Ponzanelli, *Tanto rumore per nulla: a proposito di gazzette e di responsabilità medica*, cit. fn. 23, 552 ff.

²⁵ See F. Stella, *Leggi scientifiche e spiegazione causale nel diritto penale*, 2nd ed., Giuffrè, Milan, 2000.

²⁶ See F. Stella, *Leggi scientifiche e spiegazione causale nel diritto penale*, cit. fn. 25, 281 ff.

²⁷ See F. Stella, *Leggi scientifiche e spiegazione causale nel diritto penale*, cit. fn. 25, 32.

²⁸ See already G. Cattaneo, *La responsabilità del professionista*, Giuffrè, Milan, 1958, 325.

²⁹ See *ibidem*.

³⁰ See Cass. 2nd April 1987, in *Cassazione penale*, 1989, 72.

³¹ Cass. 11th November 1994, in *Cassazione Penale, Massimario Annotato*, 1995, fasc. 8.

causation was considered practically incidental and therefore solved through a mere juxtaposition with negligence³² i.e. there has been negligent conduct... therefore she has caused the damage.

At the turn of the last century, some decisions of the “*Corte di Cassazione*”, without repudiating the model of scientific causation, began to require more convincing conditions to establish causation³³; as a consequence, a conflict among different divisions of the Supreme Court occurred.

At first, the Criminal Division of the Italian Supreme Court imposed that the causation assessment should be based upon the principle of a probability close to certainty³⁴. This rule forced judges to limit criminal convictions only to cases where causation had been certainly proven. However, the instrument used to verify the existence of causation was, and still is, “abstract” statistical probability (i.e. the statistical probability a consequence could ensue based on the given facts) not individual/specific probability that the defendant’s actual conduct has caused the harm.

Following this period of uncertainty and conflict among different divisions of the Supreme Court, the “*Corte di Cassazione*”, in a different (and more authoritative) composition of its criminal division (the so-called “*Sezioni Unite*”)³⁵, established a higher evidential standard. This evidential standard was based on the principle according to which evidence should “beyond any reasonable doubt” lead to an acquittal whenever there is no certainty of the medical malpractice and of the causal link between the conduct and the damage³⁶. Importantly, this decision was rendered by the criminal division representing, as we will see an important evolution in the Italian legal system.

Following this “*revirement*” in criminal case law, the mentioned rule of evidence to establish causation was extended to the civil divisions by the decision of the *Corte di Cassazione* dated 4th March 2004, no. 4400³⁷. In short, this judgment gives a clear answer to the causation issue in the sense that causation itself must be established in accordance with Arts. 40 and 41 of the criminal code. In principle, this statement should have resulted in the abandonment of the criterion of “*more probable than not*”. However, this did not occur. In reality, this decision has been applied in various ways, among

³² See R. Blaiotta, *La causalità nella responsabilità professionale tra teoria e prassi*, Giuffrè, Milan, 2004, 176 f.

³³ For example, Cass. 1st September 1998, no. 10929, in *Rivista italiana di medicina legale*, 2000, 271, commented on by V. Fineschi, *Responsabilità medica per omissione: malintesi e dubbi in tema di nesso di causalità materiale*.

³⁴ See Cass. 28th September 2000, no. 1688, in *Rivista italiana di medicina legale*, 2001, 805, commented on by A. Fiori and G. La Monaca, *Una svolta della Cassazione penale: il nesso di causalità materiale nelle condotte mediche omissive deve essere accertato con probabilità vicina alla certezza*.

³⁵ Cassazione penale, Sezioni Unite, 11th September 2002, no. 30328, in *Danno e responsabilità*, 2003, 195, the so-called “*Franzese case*”, commented on by S. Cacace, *L’omissione del medico e il rispetto della presunzione di innocenza nell’accertamento del nesso causale*.

³⁶ See recently M. Barni, *Come si esorcizza il ragionevole dubbio: prove di restaurazione?*, in *Rivista italiana di medicina legale*, 2007, 1412.

³⁷ In *Danno e responsabilità*, 2005, 45, commented on by M. Feola, *Il danno da perdita di chances di sopravvivenza o di guarigione è accolto in Cassazione*, and L. Nocco, *La “probabilità logica” del nesso causale approda in sede civile*.

which it has been said that the civil division of the “*Corte di Cassazione*” meant, with it, to return to a lower index of probability compared with the decision of the criminal division³⁸.

However, we think the civil division of the “*Corte di Cassazione*” (in that moment) did not display any contrast with the criminal division. Actually, in our opinion, the adoption of a high probability standard – which would have reduced the recoverability of damages in civil law matters – forced the civil division of the Italian supreme judicial body to adopt the “loss of a chance of survival or recovery” criterion, in order not to over-reduce compensation.

In short, the civil division of the Italian Supreme Court accepted the recoverability of the damages deriving from the loss of chance of survival, considering the chance of survival as an interest to be protected as such³⁹.

Accordingly, damages have to be awarded in proportion to the loss of a chance of survival (or recovery) that a doctor had “caused” to the patient through his malpractice. Loss of chance operates in a very similar way to proportional liability, even though, as we will see subsequently, in a non-convincing and probably theoretically and technically incorrect way.

Some recent decisions of the civil divisions of the “*Corte di Cassazione*”⁴⁰, on the contrary, initiated a process of deviation from the principles previously outlined in relation to the assessment of causation and loss of a chance. Particularly, Cass. 19th May 2006, no. 11755 closed the gap between the understanding of causation in criminal and civil matters, claiming that the assessment of causation in the mentioned decision of 11th September 2002, no. 30328 (where the principle of beyond any reasonable doubt is stipulated), explored a different area of law, *i.e.* criminal law, and is not applicable to civil cases.

Following the decision of 2006, the Italian Supreme Court, in the judgment of 16th October 2007, no. 21619⁴¹, confirmed the existence of a clear distinction in the assessment of causation between civil and criminal proceedings.

In Italy, as the Supreme Court reflected, the principle of presumption of innocence, established by Art. 27 of the Constitution, refers only to criminal law. On the contrary, civil liability does not provide for a similar principle, and the possibility of strict liability rules is provided for⁴².

³⁸ M. Viti, *Responsabilità medica: tra perdita di chances di sopravvivenza e nesso di causalità*, in *Corriere giuridico*, 2004, 1026. Likewise also M. Rossetti, *Allargati ancora i confini della responsabilità del medico*, in *Diritto & Giustizia*, 2004, 14, 35 f. and, more recently, B. Tassone, *La ripartizione di responsabilità nell'illecito civile*, cit., 248.

³⁹ See Cass. 4th March 2004, no. 4400, cit. fn. 37.

⁴⁰ Cass. 18th April 2005, no. 7997, in *Corriere giuridico*, 2006, 257, commented on by F. Rolfi, *Il nesso di causalità nell'illecito civile: la cassazione alla ricerca di un modello unitario* and Cass. 19th May 2006, no. 11755, in *Danno e responsabilità*, 2006, 1238 ff., commented on by L. Nocco, *Causalità: dalla probabilità logica (nuovamente) alla probabilità statistica: la Cassazione civile fa retromarcia*.

⁴¹ In *Corriere giuridico*, 2008, 35, commented on by M. Bona, *Causalità civile: il decalogo della Cassazione a due “dimensioni di analisi”* and in *Danno e responsabilità*, 2008, 43, commented on by R. Pucella, *Causalità civile e probabilità: spunti per una riflessione*.

In any case, the very important outcome of the 2006 decision is the final prevalence of the “more probable than not” standard of proof (preponderance of evidence), which is clearly stated in the decision of the civil division of the *Corte di Cassazione*⁴³.

To complete our description, we must recall that similar rules are applied in the field of attorney’s liability as well⁴⁴. In other fields, case law has not investigated yet the rule of judgment to be adopted in case concerning uncertainty, at least according to the depth illustrated above. As a rule, however, the principle of “more probable than not” is increasingly applied. Indeed, according to authoritative legal scholarship, this is the probative rule applicable in Italy⁴⁵.

3. Reasons to Introduce a Rule of Proportional Liability and Policy Related Implications

Having described the rules regarding the burden of the proof which are applicable in Italian civil lawsuits, in our mind it is evident – as we will try to show – why, according to us, the “all-or-nothing” rule, which is still usually applied by case law (except rare exceptions⁴⁶) cannot pursue the deterrence objective in every case where facts are assessed on the ground of merely probabilistic criteria⁴⁷.

That is true, firstly in a case where the threshold of the more probable than not standard is not reached and, yet, there is a significant percentage, say, 40-45%, of probability. Here, there is a clear under-deterrence effect, since the alleged conducts have contributed to the damage with a certain degree of verisimilitude.

⁴² Moreover, civil law is uninterested in the way damages are charged, *i.e.* by means of strict or fault-based liability, since it is a question of mere wealth redistribution. See F. Stella, *Giustizia e modernità*, 3rd ed. Giuffrè, Milan, 2003, 29 ff.

⁴³ See, recently, in the same sense, M. Taruffo, *La prova del nesso causale*, in *Rivista critica del diritto privato*, 2006, 101 ff., now in C. De Maglie, S. Seminara (eds.), *Scienza e causalità*, Cedam, Padua, 2006. It is important to stress that, after that decision, the civil division of the Italian Supreme Court affirmed also the inversion of the burden of the proof of medical causation (see Cass. Sez. Un., 11th January 2008, no. 577, in *Nuova giur. civ. comm.*, 2008, I, 612, commented on by R. De Matteis, *La responsabilità della struttura sanitaria per danno da emotrasiusione*).

⁴⁴ See for an overview L. Nocco, *Itinerari della giurisprudenza. La responsabilità civile dell’avvocato*, in *Danno e responsabilità*, 2009, 302 ff.

⁴⁵ See M. Taruffo, *La prova dei fatti giuridici*, Giuffrè, Milan, 1992, 272 ff. and, more recently, *Id.*, *La regola del più probabile che no come regola probatoria e di giudizio del processo civile*, in V. Garofoli (ed.), *L’unità del sapere giuridico tra diritto penale e processo*, Giuffrè, Milan, 2005, 56 ff. and F. Stella, *A proposito di talune sentenze civili in tema di causalità*, in *Rivista trimestrale di diritto e procedura civile*, 2005, 1159 ff. But, for a different opinion, see S. Patti, *Commento sub art. 2697 c.c.*, cit., 164 ff. See also S. Patti, *Spunti di teoria generale sull’onere della prova (anche in relazione al diritto tributario)*, in *Obbligazioni e contratti*, 2009, 679 ff.

⁴⁶ See, firstly the above-mentioned case law regarding the recoverability of the loss of a chance of recovery or survivorship. See also the damage to the professional competence of the worker due to the imposition of disqualifying duties (on this point, please refer to the following pages).

⁴⁷ Actually, according to B.A. Koch, *The “European Group on Tort Law” and Its “Principles of European Tort Law”*, 53 *Am. J. Comp. L.*, 189, 193 (2005), “(f)actual causation alone is, of course, insufficient (...) in order to determine whether and to what extent liability can be established under the circumstances of the case”. See also L. Nocco, *Il “sincretismo causale” e la politica del diritto: spunti dalla responsabilità sanitaria*, cit. fn. 3, 247 ff. and 309 ff.

These policy considerations hold true also in the opposite cases where the “more probable than not” threshold in the standard of proof is reached. However, in such cases, the risk is over-deterrence, since the transfer of wealth from the tortfeasor to her victim is not fully justified. Indeed, it is neither certain, nor it can be said probable, that the defendant has caused the alleged harm. On the contrary, there might be evidence that the damage has a different cause (either or both natural and human).

The distortionary effect in tort law is evident and discussed in scholarship⁴⁸.

Moreover, the compensatory scope of tort law would result, in its turn, prejudiced, since often the plaintiff may not provide the proof of her own right, even on a probability base, under the circumstances previously described⁴⁹.

Moreover, under the operation of a rule of preponderance of evidence, the parties will not be properly motivated to promote the optimal level of knowledge of the trial facts by providing further proof, since more probable than not is the threshold which can either grant compensation or deny it⁵⁰.

Of course, the adoption of proportional liability has a clear impact on the reallocation of costs as well. This problem has been discussed in scholarship either expressly⁵¹ or by tackling the effects of “graduating” liability from the angles of specific elements of liability or by investigating the effects of joint or several liability⁵².

As for case law, an analogous problem has been faced concerning causation in medical tort law. Yet, its solution has not been the explicit use of proportional liability, but rather the “lost chance of recovery and survival theory”⁵³ which actually forces the system to switch from an “all-or-nothing” rule to an “all-or-proportional” rule.

The adoption of a theory which apportions civil liability in relation to the degree of proof that each party has been able to offer during the trial, does not bear unilateral advantages in favour of only one of

⁴⁸ As P. Trimarchi, *Causalità e danno*, Giuffrè, Milan, 1967, 54, writes, though not with reference to proportional liability, if deterrence is absent, the transfer of wealth from a tortfeasor to a victim is not fully justified. More recently, see also R.E. Cerchia, *Uno per tutti, tutti per uno. Itinerari della responsabilità solidale nel diritto comparato*, cit. fn. 4, 47, 81 ff. and 198 ff., for an overview for the distortions which might be caused by the application of joint and several liability and for the hypotheses of reform which are carried out on this matter in several countries.

⁴⁹ See Comandé, *L'assicurazione e la responsabilità civile come strumenti e veicoli del principio di precauzione*, cit. fn. 3, 72, and M. Capecchi, *Nesso di causalità e perdita di chances: dalle Sezioni unite penali alle Sezioni unite civili*, in *Nuova giurisprudenza civile commentata*, 2008, II, 162.

⁵⁰ D. Rosenberg, *The Causal Connection in Mass Exposure Cases: A “Public Law” Vision of the Tort System*, 97 *Harv. L. Rev.*, 909 (1984).

⁵¹ See G. Comandé, *L'assicurazione e la responsabilità civile come strumenti e veicoli del principio di precauzione*, cit. fn. 3, 66 ff.

⁵² See B. Tassone, *La ripartizione di responsabilità nell'illecito civile. Analisi giuseconomica e comparata*, cit. fn. 4; U. Violante, *La responsabilità parziaria*, cit. fn. 4; A. Gnani, *Commento sub art. 2055*, cit. fn. 4; M. Feola, *Il danno da perdita di chances*, cit. fn. 4, 121 ff.; F. Parisi, V. Fon, *Causalità concorrente*, cit. fn. 4, 701 ff.; R.E. Cerchia, *Uno per tutti, tutti per uno. Itinerari della responsabilità solidale nel diritto comparato*, cit. fn. 4, 213 ff.; A. Gnani, *L'art. 2055 c.c. e il suo tempo*, in *Danno e responsabilità*, 2001, 1037 ff.; U. Violante, *Responsabilità solidale e responsabilità parziaria*, in *Danno e responsabilità*, 2001, 460 ff.; Id., *Concorso di colpa e allocazione della responsabilità*, in *Rivista critica di diritto privato*, 2004, 483 ff.

⁵³ See Cass. no. 4400/2004, cit. *supra* fn 37.

the two interested parties (*e.g.*, in the field of medical malpractice, doctors and patients, but this consideration might be generalised to all the cases where proportional liability applies). On the contrary, we think that it provides a fair sharing of (medical or otherwise) risks, and it is especially appropriate when the allocation of uncertain risks both at the general (scientific) and at the individual (procedural) level is at stake.

Of course we are aware that the theory of proportional liability can be considered, as was the loss of a chance, as a form of “*discounted liability*”⁵⁴. However, adopting the “all-or-nothing” theory, which is still formally applied in Italy, except in fields where the “loss of a chance” is used⁵⁵, the tortfeasor quite often is condemned to pay all or nothing (and, *vice versa*, the victim recovers all of or no damages) on the ground of absolutely unforeseeable and difficult to evaluate circumstances.

In cases where the probabilities are substantially the same (fifty-fifty per cent), in adopting the “all-or-nothing” theory the judge will have the power to allocate damages, so to say, “as she pleases”⁵⁶.

Technically, the judge will be using meta-legal concepts (policy considerations often hidden in interpretative reconstructions) or will “weigh” the proof so as to reach the pursued allocation of costs while the actual criteria of allocation might remain unveiled.

In addition, due to the incertitude of the grounds for the judgment and often for the legal impossibility to criticize the factual evaluation on appeal, it might be significantly difficult, in appeal cases, to reverse the judgment.

Furthermore, in the presence of uncertain risks, as occurs typically in the application of proportional liability, the idea to proportion liability to the percentage of proof is fully consistent with the objectives of civil liability and tort law *i.e.* compensation and deterrence.

As has been argued before, such consistency is not present in the application of the “all-or-nothing” rule.

In our view, proportional liability can offer an evolutionary legal rule, flexible enough to reflect in law the advancements of scientific knowledge and to manage uncertainty.

Thus, in conclusion, the re-allocative effects of proportional liability are coherent and consistent with its premises. Nevertheless, as will be discussed below⁵⁷, we propose to limit –provisionally at least– proportional liability only to cases where uncertainty arises due to the lack of scientific knowledge

⁵⁴ See J. Healy, *Medical Negligence: Common Law Perspectives*, Sweet & Maxwell, London, 1999, 221.

⁵⁵ See firstly the above-mentioned case law regarding the recoverability of the loss of a chance of recovery or survivorship in the field of medical law. See also the area of damage to the professional competence of the worker due to the imposition of disqualifying duties and the damage caused by public or private selections, illegally performed, which have been recovered in Italy by means of the loss of a chance. See for instance M. Feola, *Il danno da perdita di chances*, *cit. fn. 4, passim*.

⁵⁶ See L. Nocco, *Rilevanza delle concause naturali e responsabilità proporzionale: un discutibile revirement della Cassazione*, in *Danno e responsabilità*, 2012, 149 ff.

⁵⁷ See *infra*, Part III.

thereby excluding cases where incertitude is caused by a defective allegation or lack of proof of facts by the plaintiff.

Moreover, it must be stressed that the dissimilar relevance of interests at stake (*e.g.* fundamental rights and the right to health above all) have triggered different judicial attitudes with regard to the manipulation of the elements of liability required in granting compensation, and this might (and perhaps should) be the case for proportional liability as well.

The application of proportional liability, so to say, allows one to avoid the gap between judicial statements and real life which is at time difficult to circumvent according to the traditional “all-or-nothing” regime. In fact, we should bear in mind that in most cases of personal injuries, a web of causation exists, *i.e.* a plurality of etiological factors involved in the causation of the event⁵⁸. This can occur, for example, in cases concerning occupational diseases⁵⁹, and in all contexts subject to so-called “systemic causality”⁶⁰.

In such cases, the difficulty does not consist only in the assessment of causation, but the real problem is that damage is not caused only by one factor and allocating the loss is above all a matter of policy played by legal rules. In such cases, not accidentally, it has been argued that the etiologic reconstruction must search for the “*prominent etiologic contribution*”⁶¹. Essentially, this admits that there is not only one cause of the event, and the selection of the prominent one is a policy decision hidden behind a (technical discretionary) legal rule.

Based on this we are of the opinion, that the adoption of a proportional liability scheme is even more necessary, replacing, in cases of scientific uncertainties, the preponderance of evidence and the all-or-nothing rules.

Part II. In Search of Instances for Proportional Liability

4. The First Category of Proportional Liability (and Tools Aimed at Aiding Similar Objectives): Uncertainty on the Link between the Defendant’s Conduct and Harm.

It is necessary again to remember that the expression “proportional liability” and its rationale have not been sufficiently investigated by Italian scholarship and case law. Therefore, in the literature no

⁵⁸ Among criminal lawyers, see L. Cornacchia, *Il concorso di cause colpose indipendenti: spunti problematici (Parte I)*, in *Indice penale*, 2001, 645 ff. and *Parte II, ibidem*, 1063 ff.

⁵⁹ Cf. A. Fiori, *La causalità nelle malattie professionali (Parte Prima)*, in *Rivista italiana di medicina legale*, 2006, 781 ff.

⁶⁰ See C. Piergallini, *Danno da prodotto e responsabilità penale. Profili dommatici e politico-criminali*, Giuffrè, Milan, 2004, 140 ff.

⁶¹ This way E. Di Salvo, *Causalità e responsabilità penale. Problematiche attuali e nuove prospettive*, Utet, Turin, 2007, 179 ff.

explicit reference to any sub-categorization regarding this matter can be found. However, following a sub-categorization, recently proposed⁶², we will analyze the following five sub-categories:

Sub-category A1 – “Alternative Liability” – Indeterminate Tortfeasor

Sub-category A2 – “Market-Share Liability” – Causally Unrelated Tortfeasors and Victims

Sub-category A3 – “Pollution or Drug Cases” – Indeterminate Victims

Sub-category A4 – “The Hard Case”

Sub-category A5 – “Lost Chances”

4.1. Sub-category A1 – „Alternative Liability“ – Indeterminate Tortfeasor

Firstly, we will address cases in which it is uncertain whether the defendant’s tortious activity was the “*causa sine qua non*” of any part of the plaintiff’s harm.

Sub-category A1 includes cases in which multiple defendants may have been the cause of the harm, but not all of them, perhaps even just one defendant, have actually caused the harm.

Following the sub-categorization suggested, therefore, we should bear in mind that in the cases belonging to sub-category A1, called “alternative liability”, contrarily to the ones analysed in the following sub-categories, the damage is borne by an anonymous tortfeasor, even if that tortfeasor belongs to a group who actually behaved tortiously.

4.1.1. Asbestos-related Illnesses

The above-mentioned situation frequently occurs in cases where the harm results in asbestos-related pathologies since it is not always possible to establish the subject responsible for the damage given that workers have provided their services to different employers over the years.

In Italy, the relationship between asbestos exposure and asbestosis led the legislator to provide for specific rules forbidding contact with this substance (Royal Decree (R.D.) 14th June 1909, no. 442, concerning works unhealthy for women and children).

Finally, Act, 27th March 1992, no. 257 totally prohibited the use of asbestos.

If the employee has contracted an asbestos-related disease and, therefore, seeks damages from the employers (assuming that, as is very frequent, s/he was employed by several companies resulting in multiple exposures to asbestos), the but-for theory of causation seems compromised on two counts: not only due to the difficult compatibility with an assessment where the probability threshold tends to

⁶² For the analysis of the proposed categorization and examples please refer to I. Gilead, M.D. Green, B.A. Koch (eds.), *Proportional Liability: Analytical and Comparative Perspectives*, cit., fn. 1.

reduce dangerously, even falling below 50% (we could say, paradoxically, “less probable than not”), as in the cases of medical malpractice⁶³, which will be analysed later, but also due to a problem of damage allocation on a specific agent (pairing one Plaintiff with one Defendant).

These cases, which may be solved only by adopting a wide use of presumptions, show that the but-for theory, applicable to cases of linear causation, is an awkward and troublesome instrument if used in cases where there is the possibility of establishing multiple causation.

The above-mentioned hypothesis shows at least three elements of serious uncertainty.

Firstly, the tortfeasor may not be known (that is, where the worker has been subjected to asbestos exposure by different employers). Secondly, there might be a concurrence of the victim’s own negligence: for example, the interaction between cigarette smoking and asbestos exposure can multiply the risk of developing asbestos-correlated pathologies⁶⁴. In this case, it would seem unfair to impose full liability upon the employer, even though that liability can be ascertained⁶⁵ (this is of course dependent upon the worker being aware of the dangers related to her conduct). Finally, there may be a natural concurring cause, such as a genetic predisposition.

According to a line of criminal law cases⁶⁶, the criminal liability of an employer, who fails to control dusts according to common sense and current technical knowledge, can be established even if the minimum exposure threshold is not established with certainty. Such option, if applied in cases of civil disputes, would be risky for two reasons.

On the one hand, the issue of establishing causation is bypassed because it has not been investigated whether any predisposition of the employee, along with his/her lifestyle, might have had any incidence in the production of the damage, although it is known, as previously stated, that the interaction between cigarette-smoking, for example, and asbestos exposure multiplies the risk of asbestos-related diseases⁶⁷. On the other hand, there might be the risk of reducing the workers’ protection in a significant way, as well as of increasing uncertainty, since each judge would be delegated to establish case by case the minimum threshold beyond which causation is established and below which, on the contrary, a right to compensation may not exist.

⁶³ Please refer to the case law cited *supra*, fn 23.

⁶⁴ See A. Marinaccio, *Esposizione ad amianto ed insorgenza di casi di mesotelioma maligno. Evidenze epidemiologiche e causalità*, in R. Pucella, G. De Santis (eds.), *Il nesso di causalità. Profili giuridici e scientifici*, Cedam, Padua, 2007, 117. See also E. Poddighe, *I “mass torts” nel sistema della responsabilità civile*, Giuffrè, Milan, 2008, 184 ff. for an overview on the interaction among different causes in the tobacco litigation.

⁶⁵ See U. Violante, *La responsabilità parziaria*, cit. fn. 4, 68 and, for further reflections on this point, R.E. Cerchia, *Uno per tutti, tutti per uno. Itinerari della responsabilità solidale nel diritto comparato*, cit. fn. 4, 247 ff.

⁶⁶ Cass. 30th March 2000, cit. To some extent, the reasoning seems very similar to the “risk theory”, which will be analyzed subsequently (par. 4.4) under the expression “*The Hard Case*”.

⁶⁷ See the scientific literature quoted above, fn 64.

The issues inherent to this sub-category have attracted poor attention from Italian scholars so far. According to authoritative case law⁶⁸, one has to prove one's damage in order to be compensated. Of course, presumptions can be used⁶⁹ but they do not shift the burden of proof from the plaintiff. Once the damage is proven, its amount might be quantified equitably by the judge⁷⁰.

4.1.2. Hunting Accidents

Another example we can include in this category is the classical hunting accident in which a hunter is injured by an anonymous bullet.

In Italy, according to Art. 12 of Law 11th February 1992, no. 157, hunting is subject to the possession of third-party insurance. Furthermore, Art. 2050, according to which "*anyone who causes damage to another in pursuit of a dangerous activity, by its nature or by the nature of the means employed, must compensate the damage, if she does not demonstrate that all reasonable steps to prevent the damage were taken*"⁷¹ applies to hunting activities.

The Constitutional Court⁷², in decision no. 79 of 1992, dealt with the constitutionality of Art. 2050 c.c.. It was questioned in relation to the fact that it did not provide for the presumption of joint liability of all the participants to the dangerous activity in cases where it is impossible to detect which of the participants is actually responsible for the given damage occasioned by the exercise of a dangerous activity (as in hunting).

However, the Constitutional Court rejected the question of constitutionality affirming that it falls within the legislative discretionary power to provide for stronger protection in similar cases. Thus, in these cases, in which the protection of a victim might be substantially reduced, the prospect of using a proportional liability rule would result in fairer solutions. However, the Constitutional court basically left it to the legislator to either eventually enact the principle or to adopt a public law statutory provision.

⁶⁸ See recently Cass., Sezioni Unite, 11th November 2008, nos. 26972, 26973, 26974 and 26975 in *Rivista di Diritto Civile*, 2009, 97 commented on by F.D. Busnelli, *Le Sezioni Unite e il danno non patrimoniale*.

⁶⁹ See Arts. 2727 ff. c.c.

⁷⁰ See Art. 1226 c.c., applicable to tort liability by means of Art. 2056 c.c.

⁷¹ Our translation.

⁷² Corte Costituzionale 4th March 1992, no. 79, in *Foro italiano*, 1992, I, 1348, commented on by G. Ponzanelli, "*Pallino anonimo*", ovvero attività pericolosa con responsabile ignoto e problemi di "welfare state".

4.1.3. Common Profiles

We mentioned before the case where the victim herself contributed to the damage, for example, smoking contributing to asbestos-correlated pathologies, or indeed the contribution of natural concurring causes, such as a genetic predisposition. Similar examples may be formulated in the hunting accident case.

It seems clear that, when the same victim has contributed to the alleged damage, through one's own culpable conduct, or the damage has been jointly caused by a natural defect, important differences arise that are non-existence otherwise.

In the first case (comparative negligence), we do not see any obstacles in relation to the application of Art. 1227 c.c., pursuant to which “*if the creditor's culpable fact has jointly contributed to cause the damage, the compensation is reduced according to the seriousness of the fault and to the amount of its effects*”⁷³. As for the second hypothetical (concurrent natural cause), we should mention that two opposite approaches have been applied by the courts in determining the amount of the compensable damage. One of the opinions favours the use of proportional liability and Art. 1227 c.c.⁷⁴ while the majority does not.

The majority opinion⁷⁵ rather focuses on an interpretation of Art. 2055 c.c., in the field of joint and several liability, under which the ratio of Art. 2055 c.c. would be “*the victim's interest to be wholly compensated*”⁷⁶.

Therefore, Art. 2055 c.c. is not considered as a rule burdening the victim with the damage from adverse fate. Nevertheless, such an argument, according to the minority opinion, does not take into account that the goal of enabling a creditor to enjoy her own right is present also in indivisible obligations, so that the mechanism of joint and several obligations pursues functions that are only moving towards a stronger protection of the victim⁷⁷.

⁷³ Our translation.

⁷⁴ See F.D. Busnelli, *L'obbligazione soggettivamente complessa. Profili sistematici*, Giuffrè, Milan, 1974, 136 ff. and lately, A. Gnani, *Commento sub art. 2055*, cit. fn. 4, 171 ff. and R. Pucella, *La causalità “incerta”*, Giappichelli, Turin, 2007, 151 ff. In the case law, see Cass. 11th August 1982, no. 4544, in *Massimario della giurisprudenza italiana*, 1982, Cass. 25th October 1974, no. 3133, in *Giustizia civile*, 1974, 1489, Cass. 6th December 1951, no. 2732, in *Foro padano*, 1952, I, 1312, Cass. 13th March 1950, no. 657, in *Foro italiano, Massimario*, 1950.

⁷⁵ Cass. 9th April 2003, no. 5539, in *Rivista italiana di diritto del lavoro*, 2003, II, 750, Tribunale Casale Monferrato 5th May 2000, in *Nuova giurisprudenza civile commentata*, 2000, I, 70, commented on by F. Alleva, *Questioni in tema di nesso di causalità naturale*, Cass., 5th November 1999, no. 12339, in *Nuova giurisprudenza civile commentata*, 2000, I, 661, commented on by F. Alleva, *L'irrelevanza delle concause naturali ai fini dell'accertamento del nesso di causalità materiale nella responsabilità da fatto illecito*, Cass. 16th February 2001, no. 2335, in *Danno e responsabilità*, 2002, 409, commented on by B. Sieff, *Danno neurologico da parto al neonato: nesso di causalità ed alternative indennitarie no-fault*, Cass. 27th May 1995, no. 5924, in *Massimario della Giurisprudenza Italiana*, 1995.

⁷⁶ C. Salvi, voce *Responsabilità extracontrattuale (dir. vig.)*, in *Enciclopedia del diritto*, XXXIX, Giuffrè, Milan, 1988, 1257, P.G. Monateri, *La responsabilità civile*, Utet, Turin, 1998, 189 and, recently, R.E. Cerchia, *Uno per tutti, tutti per uno. Itinerari della responsabilità solidale nel diritto comparato*, cit. fn. 4, 225.

⁷⁷ F.D. Busnelli, *L'obbligazione soggettivamente complessa*, cit. fn. 74, 81.

Since events beyond one's own control may have contributed to bring about the harm, the apportionment of the prejudicial effects of a tort is the objective of the Court of Cassation, when, by means of the above-mentioned decision no. 4400 of 2004, it has adopted for the field of medical liability the recoverability of the loss of a chance⁷⁸.

Art. 1227 c.c. establishes that it is necessary to also take into account the circumstances that are independent of the tortfeasor's conduct and that have contributed to the damage⁷⁹. To limit the above principle only to human causes would represent a derogation neither grounded on systemic requirements nor opportunity reasons which, on the contrary, would tend to allocate damages differently, if considering, for instance, the frequency of a case and the inconvenience of burdening the tortfeasor with the prejudicial effects of an act carried out not only by her.

Moreover, limiting the above principle only to human causes might result in an inefficient allocation of damages. To follow the usual patterns of irrelevance in relation to natural concurring causes would undermine the preventive function of tort law, since the alleged tortfeasor could not dominate or avoid natural causes and the rule would just have an unjustified redistributive effect ... unless such a redistributive effect is the policy goal pursued.

For such reasons, and with the mentioned qualifications, we think that it is quite logical and consistent with Italian rules to apply proportional liability in the above-mentioned cases.

We must also stress, as a further policy consideration, that through the eyes of the plaintiff there is no difference at all between the fact that a possible defendant (acting tortiously) is sharing her potential liability with natural or human non-tortious behaviour. For this reason, it might be consistent to move towards proportional liability in both cases.

To date, an important change in the debate described above was made by a recent Supreme Court decision which overturned its previous consolidated line of cases in stating that "*if the harmful event is caused by a combination of human activity and natural factors (which are not themselves linked to the first by a nexus of causal dependence) the irrelevance of such factors cannot be accepted*"⁸⁰.

This new trend, therefore, promised to open a new season in establishing causation, finally acknowledging the need to proportion the amount of damages to the actual causal contribution of the tortfeasor's conduct.

⁷⁸ See also Tribunale Venezia 25th July 2007, in *Danno e responsabilità*, 2008, 43, commented on by R. Pucella, *Causalità civile e probabilità: spunti per una riflessione*.

⁷⁹ See U. Violante, *La responsabilità parziaria*, cit. fn. 4, 97 ff.

⁸⁰ Cass. 16th January 2009, no. 975, in *Responsabilità civile e previdenza*, 2010, 375, commented on by G. Miotto, *Il "difficile" concorso di cause naturali e cause umane del danno*, in *Corriere giuridico*, 2009, 1653, commented on by M. Bona, "*Più probabile che non*" e "*concause naturali*": *se, quando ed in quale misura possono rilevare gli stati patologici pregressi della vittima*, and in *Foro italiano*, 2010, I, 1002, commented on by B. Tassone, *Concorso di condotta illecita e fattore naturale: frazionamento della responsabilità*.

At the same time, it is important to stress that the Court avoided the use of other legal theories, such as the loss of a chance, theories that are openly aimed at achieving a similar goal, but are absolutely less methodologically correct.

However, more recently, and in our opinion in a regrettably way⁸¹, the Supreme Court changed its approach⁸², re-establishing, at least theoretically, the previous rule, and expressly rejecting the proportional liability theory.

On the other hand, “*de facto*”, the two decisions come to substantially equivalent conclusions, both recognizing the need to take into account the pre-existing conditions of the victim in the quantification of damages⁸³, which may consequently be defined as a part of Italian “*jus positum*”.

4.2. Sub-category A2 – „Market-Share Liability“ – Causally Unrelated Tortfeasors and Victims

Sub-category A2 includes cases in which multiple tortfeasors cause harm to multiple plaintiffs, but it is unknown which tortfeasor caused which plaintiffs’ harm. The most important and famous hypothesis is “market-share liability”⁸⁴, where a wide use of presumptions is normally employed.

Owing to the important analogies shared with the situations described above, belonging to sub-category A1, we find it appropriate to refer to the arguments developed under para. 4.1. However, to the best of our knowledge, there is no Italian case law on this matter.

As has been noted, market-share liability represents a “*radical departure from traditional conceptions of tort law*”⁸⁵, and leads to a collectivization of liability, which is what happens in litigation relating to anonymous tortfeasors. To this extent, market-share liability represents a different option to alternative liability.

⁸¹ Please refer to L. Nocco, *Rilevanza delle concause naturali e responsabilità proporzionale: un discutibile revirement della Cassazione*, cit. fn. 56, 149 ff.

⁸² Cass. 21st July 2011, no. 15991, in *Danno e responsabilità*, 2012, 149, commented on by L. Nocco, *Rilevanza delle concause naturali e responsabilità proporzionale: un discutibile revirement della Cassazione*; in *Corriere giuridico*, 2011, 1672, commented on by M. Bona, *La Cassazione rigetta il “modello della causalità proporzionale” con un decalogo impeccabile sulla valutazione degli stati pregressi*; in *Nuova giurisprudenza civile commentata*, 2012, I, 180, commented on by R. Pucella, *Concorso di cause umane e naturali: la via impervia tentata dalla Cassazione*; in *Responsabilità civile*, 2012, 16, commented on by S. Pellegrino, *Incertezza sul nesso di causalità: il dibattito in corso tra i giudici della Cassazione*.

⁸³ See R. Pucella, *Concorso di cause umane e naturali: la via impervia tentata dalla Cassazione*, cit. fn. 82, 195 and D. Zorzit, *Il problema del concorso di fattori naturali e condotte umane. Il nuovo orientamento della Cassazione*, in *Danno e responsabilità*, 2012, 512 ff.

⁸⁴ *Sindell v. Abbott Laboratories* (1980) 163 Cal. Rep. 132, 607 P. 2d 924. For the Italian literature see G. Ponzanelli, *Il caso Brown e il diritto italiano della responsabilità civile del produttore*, in *Foro italiano*, 1989, IV, 128, F. Parisi, G. Frezza, *La responsabilità stocastica*, in *Responsabilità civile e previdenza*, 1998, 832 and, recently, E. Poddighe, *“mass torts” nel sistema della responsabilità civile*, cit. fn. 64, 108 ff.

⁸⁵ H.L.A. Hart, T. Honoré, *Causation in the law*, 2nd ed., Clarendon Press, Oxford, 1985, 424.

In all these cases, the solution relies on the burden of proof required to attach liability to a given defendant, and, in procedural terms, it is dealt with by pairing one defendant to one plaintiff. Nevertheless, we think it is useful to stress that in cases classified under sub categories A1 and A2, we can delineate a second and even preliminary layer of problems i.e. that concerning the issue of uncertain general causation.

With regard to this issue, it is useful to recall that, as has been stressed by authoritative American scholarship⁸⁶, the term «specific causation», sometimes called «individual causation», refers “to the factual issue of which particular events caused or will cause a particular injury in a specific plaintiff. Specific causation is distinguished from «general causation», also called «generic causation», which addresses whether there is any causal relationship at all between types of events and types of injury. Specific causation is whether a specific event caused or will cause a specific injury, while general causation is whether such events can (ever) cause such injuries. Usually, for a plaintiff to win damages in a tort case, the plaintiff must prove both general and specific causation”.

Again when general causation is theoretically established (e.g. pollutant x causes cancer), the increased risk of cancer by the rising presence of pollutant x with by proportional could be dealt liability more easily.

On the contrary, in instances where general causality is unclear, it is more useful to employ a progressive precautionary proportional liability tool capable of exposing and constraining in scientific terms the legal arguments behind the judicial choice to weigh evidence in one way rather than another.

Indeed, it has been argued that the increase of scientific knowledge will change the causal attribution of diseases and, in general, of damages. These outcomes shift the allocation of risks: some of them, which previously were considered as merely potential (on a solid, although not definitive, basis), may be considered as more and more well-established⁸⁷ and thus attributed accordingly.

According to our model of progressive (precautionary) proportional liability, one might think to restore the damage proportionally in relation to the probability that there exists a causal link between the conduct and the damage itself. Of course, this proportion might change in relation to scientific knowledge available at any given moment, potentially causing the award of differing amounts of damages even in the same trial.

⁸⁶ V. Walker, *Restoring the Individual Plaintiff to Tort Law by Rejecting “Junk Logic” About Specific Causation*, 56 *Ala L.R.*, 383 (2004):

⁸⁷ G. Comandé, *L'assicurazione e la responsabilità civile come strumenti e veicoli del principio di precauzione*, cit. fn. 3, 72. In the same sense, C.M. Nanna, *Principio di precauzione e lesioni da radiazioni non ionizzanti*, ESI, Naples, 2003, 34. It is clear that increased knowledge might also result in excluding that there is a causal link: let us consider the case of the implantation of silicone breasts which, after the ban imposed by the Food and Drug Administration in 1992, resulted in massive (amounting to millions) settlements and in the bankruptcy of some of manufacturing firms. However, fourteen years after, the F.D.A. excluded the toxicity of such practice (news from the site of the Authority consulted on November 18th, 2006. See www.fda.gov/CDRH/breastimplants).

4.3. Sub-category A3 – „Pollution Or Drug Cases“ – Indeterminate Victims

Sub-category A3 includes cases in which pollution, a drug or an equivalent source of risk, increases the number of those suffering from a disease but non-tortious factors are independently responsible and present in the “background” of a number of cases.

We are not aware of cases expressly dealing with this sub-category. However, in a partially different context, regarding the field of environmental damages, we must recall that the abrogated Art. 18 of Law 8th July 1986, no. 349, relating to cases concerning several tortfeasors, provided for a regime of several liability, according to which, notwithstanding the private or public nature of the victim, only the Government would be allowing standing to sue the tortfeasor for environmental damage as such.

The proportional liability was justified due to the “punitive nature”, to some extent, of the regime of liability, which was aimed at sanctioning the polluter rather than restoring the environment⁸⁸. In fact, the amount of damages were quantified taking into account the level of negligence, the necessary costs for the restoration and the profit achieved by the transgressor as a result of her behaviour.

Thus, imposing joint and several liability would be in contrast with the deterrent scope of this rule because of the risk of over-deterrence.

On the other hand, case law stressed that recoverable damages were not limited to those suffered by specific victims, but were extended also to all the costs necessary to restore the environment⁸⁹.

Coherently with the above-mentioned regime, the majority of scholars working in the field⁹⁰ qualified this kind of liability as a form of “private punishment” (“*pena privata*”), which can be defined as a penalty. Yet, technically it is a tort rule.

Today, on the contrary, the principal aim of Art. 306 of Decreto Legislativo (D. Lgs.) 3rd April 2006, no. 152 which substituted Law no. 349/1986 is restoration in kind of the polluted environment. Restoration in kind can be ordered by the Ministry of the Environment. The Ministry can only seek damages, by means of an administrative order (Art. 313 law 152/2006), in cases where the polluter does not fulfil this request. Damages are quantified with reference to the sum needed to cover the necessary interventions aimed at restoring the environment.

Coming back to the specifics of sub-category A3, i.e. where there is an increase in the number of individuals suffering from a disease but it is not possible to ascertain the possible influence of non-

⁸⁸ See recently M. Franzoni, *Il nuovo danno all'ambiente*, in *La responsabilità civile*, 2009, 785 ff. and G. Taddei, *Il rapporto tra bonifica e risarcimento del danno ambientale*, in *Ambiente e sviluppo*, 2009, 417 ff.

⁸⁹ See for instance Cass. 6th March 2007, no. 16575, in *Danno e responsabilità*, 2008, 406, commented on by U. Salanitro and L. Giampietro, *Il nuovo regime del danno ambientale*: according to this decision, the content of the damage to the environment does not coincide with the notion of suffered damage but with the notion of provoked damage and the damage is to be restored also whether there are no consequences of the illicit conduct considering that the lesion of the wide interest to the safeguard the environment is sufficient.

⁹⁰ See, among many, F.D. Busnelli, *La parabola della responsabilità civile*, in *Rivista critica di diritto privato*, 1988, 667 and P. Trimarchi, *La responsabilità civile per danni all'ambiente: prime riflessioni*, in *Amministrare*, 1987, 195 f.

tortious independent factors, we are of the opinion that, if, proportional liability is applied, several liability may be applied simultaneously instead of joint and several liability (similarly to the “*revirement*” by the House of Lords in the *Barker* case⁹¹).

As authoritatively argued⁹², several liability, not joint and several liability, represents the most adequate solution in cases of merely potential causation because it leaves room to balance everyone’s probability of causing the event and individual levels of fault, with the level of probability that the same event might have been caused by alternative tortfeasors. Again this conclusion experiences qualification if a redistribution effect is sought for any reason, including efficient loss spreading or insurance.⁹³

In case of tortfeasors’ insolvency or non-detection, joint and several liability risks that a tortfeasor is exposed to the obligation to pay full compensation even when, for example, the actual defendant who pays full compensation is the least responsible one among the joint tortfeasors. This can produce distorting effects on the deterrence goal⁹⁴. Hence, the choice among joint and several or several liability in these cases depends on the respective relevance of the compensation and the deterrence goal. When the deterrence impact is minimal it is better to pursue the compensation goal (J&S liability). On the contrary, when the impact on deterrence can be significant it might be preferable to apply several liability along with proportional liability, so as to avoid an operational effect leading to an excessive burden upon the defendant.

Metaphorically, when faced with J&S liability the tortfeasor would face, a sort of double presumptive mechanism. First, there would be a presumption – which is co-essential to establishing potential causation – that the tortfeasor contributed to causing the damage complained of, since it is by definition impossible to prove individual and actual causation⁹⁵. Moreover, the impact of this presumption would increase along with the expansion of the number of possible tortfeasors.

Furthermore, J&S liability, in cases of potential causation, results in the further presumption that the tortfeasor has caused the whole damage.

⁹¹ *Barker v Corus UK Ltd Murray v British Shipbuilders (Hydrodynamics) Ltd and others Patterson v Smiths Dock Ltd and another* [2006] UKHL 20, [2006] 2 AC 572. However, finally, in the *Compensation Act 2006*, passed on 25th July 2006, dealing specifically with damages due to asbestos exposure, the English Parliament, repudiating the House of Lords, imposed joint and several liability (see A. Samuels, *The Compensation Act 2006: Helpful or Unhelpful for Doctors?*, in *Medico-Legal Journal*, 2006, 74 (171) and N. Bevan, *Case Reports – Negligence*, in *PILS Butterworths Personal Injury Litigation Service*, 2006, 85). The same decision was taken by the Scottish Parliament, even though “*the House of Lords judgment in Barker v Corus is not binding in Scotland, but the courts are likely to find it highly persuasive*” (see T. Dowding, *Asbestos Update, Liability Risk and Insurance*, 2006 191 (11) 2). In the Italian scholarship, see also B. Tassone, *La ripartizione di responsabilità nell’illecito civile*, cit. fn. 4, 265 ff. and 472 ff. and, for the opposite view, A. Gnani, *Commento sub art. 2055*, cit. fn. 4, 309 ff.

⁹² F. Bydlinski, *Causation as a Legal Phenomenon*, in L. Tichý (ed.), *Causation in Law*, IFEC, Prague, 2007, 19 f.

⁹³ G. Comandé, *Risarcimento del Danno alla Persona e Alternative Istituzionali*, Giappichelli, Turin, 1999, *passim*.

⁹⁴ C. Gómez Ligüerre, *Joint and several liability in the law of torts (La responsabilità solidale nell’illecito civile)*, in *Responsabilità civile e previdenza*, 2009, 240 f.

⁹⁵ See F. Stella, *L’allergia alle prove della causalità individuale. Le sentenze sull’amianto successive alla sentenza Franzese (Cass. IV sez. Pen.)*, in *Rivista italiana di diritto e procedura penale*, 2004, 413 ff.

If we opt for several liability, in order to allocate the burden of the proof we face different options which diverge in a relevant way.

As argued⁹⁶, if the burden to prove the apportionment of individual conducts rests on the victim, her position would result highly weakened by moving from joint and several liability to several liability. This outcome might be not appropriate from a policy perspective because the plaintiff is usually already in a weaker position than that of the defendant.

Furthermore, such an option is not even in line with ordinary evidentiary mechanisms. If we mentally eliminate J&S liability in those cases in which causation is uncertain, it remains with the plaintiff to show the actual apportionment of damages among the potential tortfeasors by firstly delineating them and then suing each of them individually. This would be extremely burdensome for the victim. These inconveniences could be worked out by establishing a rebuttable presumption of joint and several liability on the defendant.

Indeed, whenever a plaintiff proves the constitutive facts of her own “*prima facie*” case, the defendant must demonstrate the facts which change, pay off or hinder her obligation⁹⁷.

Nevertheless, in line with the principle of the “closeness of the proof”, which is applied by Italian case law⁹⁸, such a burden may not always and solely fall on one party, but may be split between the defendant and the plaintiff in relation to the specific facts they have to prove. For example, if facts concern the victim’s physical conditions, a plaintiff must produce evidence to prove the condition or, on the other hand, she must rebut the condition. This rule also applies *vice versa* in that if the facts relate to, as an illustration, business activities, the execution of those activities or the duration of the exposure to a toxic substance, proof of which may be mostly controlled by the supposed tortfeasor, the latter shall be charged with the burden of the proof to limit the compensable damage or to exclude its existence.

In short, the burden of limiting the amount of the compensatory obligation is shaped according to its specific content. Of course, it remains understood that a judge can convince herself in light of presented proof, regardless of sources.

We, therefore, propose a sort of “temperate” several liability rule, through the procedural mechanisms according to which a defendant may limit her own obligation during the objections (but not during the action for recourse⁹⁹), aware that, in the absence of proofs, she shall shoulder the whole

⁹⁶ L. Gullifer, *One Cause After Another*, 117 *L.Q.R.* (2001), 403, 405.

⁹⁷ See before mentioned Art. 2697 c.c.

⁹⁸ See Cass. 19th May 2004, no. 9471; Cass. 28th May 2004, no. 10297; Cass. 21st June 2004, no. 11488, in *Danno e responsabilità*, 2005, 23, commented on by R. De Matteis, *La responsabilità medica ad una svolta?*, and Cass. 30th October 2001, no. 13533, in *Giustizia civile*, 2002, I, 1934.

⁹⁹ On this, see recently R.E. Cerchia, *Uno per tutti, tutti per uno. Itinerari della responsabilità solidale nel diritto comparato*, cit. fn. 4, 239 ff.

weight of a possible adverse verdict. In other terms, it will be on the defendant to show the other tortfeasors' contribution to reduce her liability.

In this way, the risk of the absence of proof potentially rests on the supposed tortfeasor. However, she shall not shoulder the risk of insolvency and/or non-detection of other possible joint contributors to the harmful event, “*thereby spreading the risk of insolvency more fairly among the parties involved than under most existing regimes*”¹⁰⁰.

Moreover, we must also consider that some pathologies, such as mesothelioma, are indivisible: whenever it has been caused, by only one asbestos fibre, independently of its latency or evidence, it does not get worse with continued exposure¹⁰¹.

We may consider that as another factor illustrating how excessively burdensome the imposition of a joint and several liability in some instances or several liability rule - with the above mentioned procedural qualifications and redistribution concerns - is.

We envisage a situation whereby plaintiffs, in the hypothetical situation we are referring to, must only prove that there is liability (they “suffered” a tort) failing to quantify damages and their attribution to a specific defendant.

At the moment, in Italy, we find it probable that these cases would be treated as cases of joint and several liability, regulated by Art. 2055 c.c. The condition to apply Art. 2055 c.c. is the singularity of the detrimental event¹⁰². Yet, the singularity of the conduct is not necessary¹⁰³, since the requirement of subjectively complex obligations lies in the plurality of subjects with “*eadem res debita*” (the same obligation) and “*eadem causa obligandi*” (the same source of obligation)¹⁰⁴.

On this matter, case-law orientation tends to enlarge the concept of singularity of a detrimental event, in order to extend the application of Art. 2055 c.c.¹⁰⁵

Therefore, the fact that the prejudice has been caused by more than one act or omission, or the fact that the victim is unable to apportion damages among tortfeasors, are basically irrelevant elements in view of the application of Art. 2055 c.c. In fact, the victim may claim full compensation from any co-tortfeasor who later has recourse to action against the other tortfeasors (Art. 2055, 2nd paragraph c.c.). The amount recoverable in recourse by a defendant depends on the degree of the respective fault and

¹⁰⁰ See B.A. Koch, *The “European Group on Tort Law” and Its “Principles of European Tort Law”*, cit. fn. 47, 193. See also European Group On Tort Law, *Principles of European Tort Law: Text and Commentary*, cit. fn. 5.

¹⁰¹ See J. Stapleton, *Two Causal Fictions at the Hearth of U.S. Asbestos Doctrine*, 122L.Q.R. (2006) 189-195.

¹⁰² Recently, A. Gnani, *Commento sub art. 2055*, cit. fn. 4, 127 ff. On this point see also R.E. Cerchia, *Uno per tutti, tutti per uno. Itinerari della responsabilità solidale nel diritto comparato*, cit. fn. 4, 217 ff.

¹⁰³ See C. Salvi, voce *Responsabilità extracontrattuale (dir. vig.)*, cit. fn. 76, 1254 and P.G. Monateri, *La responsabilità civile*, cit. fn. 76, 189 ff.

¹⁰⁴ See F.D. Busnelli, *L’obbligazione soggettivamente complessa*, cit. fn 74, 55.

¹⁰⁵ See R. Pucella, *La causalità “incerta”*, cit. fn. 74, 189 ff.

on the seriousness of the ensuing consequences. In doubt, negligence is supposed to be apportioned equally.

From the above it follows that in “A3” cases it would be easy to find the conditions for the application of Art. 2055 c.c. to ease the position of the plaintiffs: that is the uniqueness of the event¹⁰⁶.

Following the analysis of Italian law on this issue, we come to the conclusion that it is possible and perhaps useful to apply proportional liability to those cases. However, it should be a context-related proportional liability (according to the kind of damaged interest, for instance: *e.g.* health) which can be accompanied by joint and several liability in view of reducing the plaintiff’s administrative and litigation costs and for shifting insolvency risks from Plaintiffs to Defendants.

4.4. Sub-category A4 – „The Hard Case“

Sub-category A4 includes cases in which it is uncertain whether a unique tortfeasor caused harm to a unique victim. On the other hand, it may be said that the defendant increased the risk to the plaintiff to suffer the injury which actually happened but, which might theoretically occur also otherwise.

For instance, a doctor negligently operates a caesarean section and (consequently?) a newborn suffers a severe brain damage. However, it is uncertain whether the damage was an inevitable outcome of her premature birth or was actually due to the negligent treatment.

In this and in similar cases there may be room for the application of liability for increased risk, which has been used by courts¹⁰⁷ and debated in scholarship.

To this extent, we can say that the proportional liability doctrine shares with the loss of a chance rule the objective pursued: namely, to compensate production of evidence difficulties faced by plaintiffs in cases where it is impossible to satisfy the standard of proof, whatever that may be. Obviously, the higher the standard the higher the need to use such doctrines. Therefore, the analogies between the two models that have been applied in similar situations are very important.

¹⁰⁶ See the case law mentioned in R.E. Cerchia, *Uno per tutti, tutti per uno. Itinerari della responsabilità solidale nel diritto comparato*, cit. fn. 4, 225 ff.

¹⁰⁷ See above all the case law related to medical liability, previous to the “*revirement*” carried out by Italian Supreme Court in 2002 (please refer to paragraph no. 2). See also the case law regarding asbestos-related litigation, for instance Tribunale Barcellona Pozzo di Gotto 15th April 2004, no. 501; 11th November 2004, nos. 1557 and 1558, in *Giurisprudenza italiana*, 2005, 1168, commented on by N. Coggiola, *Il giudice e la statistica: attività lavorative, esposizione all’amianto ed asbestosi (ovvero quando il numero di morti e malati fa la prova nel processo)*, and Cass. 30th March 2000, in *Foro italiano*, 2001, II, 278, commented on by R. Guariniello, *Dai tumori professionali ai tumori extraprofessionali da amianto*. For the literature, see N. Coggiola, *Nesso di causalità e colpa nel danno da amianto. Le esperienze italiana e inglese*, in *Rivista di diritto civile*, 2008, 381 ff. and, in a very critical way, F. Stella, *L’allergia alle prove della causalità individuale. Le sentenze sull’amianto successive alla sentenza Franzese (Cass. IV sez. pen.)*, cit. fn. 95, 413 ff.

The main distinctions we can draw between the two doctrines remain based on the fact that loss of chance relates to compensating for the reduced probability of survival -for instance- or the increased risk of harm as a loss in itself. Increased risk, on the contrary, would compensate the whole loss actually incurred.

4.5. Sub-category A5 – „Lost Chances“

Analogously to sub-category A4, sub-category A5 also refers to cases in which the defendant cannot satisfy the required standard of proof because, according to current scientific knowledge, it is unascertainable whether a damage has been caused by a defendant or it would have occurred anyway.

Therefore, is it only possible to say that the alleged tortfeasor's negligence reduced the victim's chances not to suffer the harm.

Debate in relation to this topic has focused on medical liability. Nevertheless, judicial decisions rendered in this field usually have an important impact also in other areas, setting a general rule. Thus, we will focus our attention mainly on the case law regarding medical related accidents.

In Italy, after the decision of the Criminal Division of the “*Corte di Cassazione*”, establishing a higher evidential standard in the proof of specific material causation¹⁰⁸, the Civil Division of the Supreme Court chose to adopt the theory of the loss of a chance of survival or recovery.

Applying such theory, the damage is quantified by identifying the chance the plaintiff has lost and awarding damages accordingly.

The main problem concerning recoverability under a loss of chance theory is that it permits compensation of a predicted or potential loss¹⁰⁹.

Public competitions for employment contracts, competitive examinations for appointment to public office, and prejudices regarding professional competence based on the imposition of disqualifying duties are the main instances in which case law has granted compensation for loss of a chance¹¹⁰. The problems raised by the idea of compensating a loss of chance have led prominent scholars to critically maintain that, in the case of medical services, liability should be found by focusing on the assessment of the default in the obligation and not on the compensable damage. In other terms,

¹⁰⁸ See *supra*, paragraph no. 2

¹⁰⁹ See L. Bigliuzzi Geri-U. Breccia-F.D. Busnelli-U. Natoli, *Diritto civile*, 3, Utet, Turin, 1992, 729; F.D. Busnelli, *Perdita di una “chance” e risarcimento del danno*, in *Foro italiano*, 1965, IV, 50 f. and R. Pucella, *La causalità “incerta”*, cit. fn. 74, 89 ff.

¹¹⁰ See lastly Cass. 23rd January 2009, no. 1715, in *Il lavoro nella giurisprudenza*, 2009, 516, where the loss of the worker's chance to pass a competition, due to the bad faith of the employer, has been awarded. See also Cass. 10th June 2004, no. 11045, in *Gius.*, 2004, 3884, where the loss of the chance to progress in one's own career path, due to the imposition of disqualifying duties, has been compensated.

“there shall not be compensation for the positive chance lost but for the lack of a result due to the non or mis-performance”¹¹¹.

Loss of a chance is a theory oriented to sustain and expand compensation. The limits it faces in this perspective and in the context of medical liability are basically conceptual. Case law has pointed out that, when dealing with the loss of the possibility to win in a competitive examination, courts examine the possible evolution of a future condition. To the contrary, in medical liability cases, “*medical conduct interferes in a causal chain in progress, precluding the possibility of reaching the result of care or survivorship*”¹¹².

However, it may be said that the loss of a chance and proportional liability “*de facto*” share the same requisites (a lack of knowledge, which renders the ascertainment of the actual case impossible) and objectives (sharing the risk of the above cited lack of knowledge among plaintiffs and defendants).

5. Some First Insights on Proportional Liability and Uncertainty

The issues that some decisions try to solve using the theory of the compensable loss of chance may be tackled more properly by delimiting the scope of compensable consequences¹¹³. Indeed, this was the path pursued by the “*Corte di Cassazione*” in decision no. 4400/2004 quoted above.

Therefore, even if, as we have stated before, the theories of loss of a chance and of proportional liability pursue similar objectives in the domain of sharing uncertain risks, we think it is preferable to adopt the second theory since it permits a better calibration of the amount of damages¹¹⁴.

As has been pointed out¹¹⁵, to claim that the defendant must compensate the entire damage even if causation is proven only on an “approximate” 50,01% probability basis and, *vice versa* to maintain the opposite when the statistics showed lower percentages, essentially relates to a false certainty of law.

Consequently, various reasoning models have been proposed including charging the defendant only with the damage actually caused by her, the loss of a chance rule or the most recent doctrine of proportional liability. Though the methods are essentially dissimilar at an operational level, these solutions emerge from the same assumption i.e. to establish a threshold would involve in any case a quite diverse treatment for basically similar situations¹¹⁶.

¹¹¹ C. Castronovo, *La nuova responsabilità civile*, 3rd ed., Giuffrè, Milan, 2006, 762 f.

¹¹² See Tribunale Venezia 25th July 2007, cit. fn. 78.

¹¹³ As Tribunale Venezia 25th July 2007, cit. fn. 78, suggests.

¹¹⁴ See European Group On Tort Law, *Principles of European Tort Law: Text and Commentary*, cit. fn. 5, L. Nocco, *Il “sincretismo causale” e la politica del diritto: spunti dalla responsabilità sanitaria*, cit. fn. 3, 156 ff. and G. Comandé, *L’assicurazione e la responsabilità civile come strumenti e veicoli del principio di precauzione*, cit. fn. 3, 66 f.

¹¹⁵ See M. Feola, *Il danno da perdita di chances*, cit. fn. 4, 126 f.

¹¹⁶ See also M. Capecchi, *Il nesso di causalità. Da elemento della fattispecie “fatto illecito” a criterio di limitazione del risarcimento del danno*, 2nd ed., Cedam, Padua, 2005, 279 and M. Feola, *Il danno da perdita di chances*, cit. fn. 4, 286 ff.

The issue is felt obviously much more in the field of criminal liability. In order to solve the current problems posed, in the field of criminal law, by scientific uncertainty, a prominent Italian criminal law scholar¹¹⁷ has proposed that those cases characterised by scientific uncertainty (medical malpractice, environmental liability, etc.) should be transferred from criminal to civil courts. The aim is to avoid the possibility of punishing someone in cases of scientific uncertainty via criminal courts seeing as civil “punishment” impacts upon less important values.

Such a perspective would also affect the notion of evidence required and, particularly, of scientific evidence, since it should limit the use of the evidential standard of “beyond any reasonable doubt” (that is, certainty) only to criminal law, and should accept the use of a standard of mere preponderance of evidence, the so-called “more probable than not” rule in establishing causation in civil matters.

This proposal is partially unsatisfactory, since it would hinder the traditional aims of the tort system, above all the goal of deterrence. It would also hinder the compensatory aims of tort, because the plaintiff, if unable to demonstrate that the causal link between defendant’s conduct and her harm is more likely than not to exist, will not receive any damages at all.

On the contrary, we stress the fairness of the apportionment of civil liability in relation to the degree of proof that each party will be able to offer during the trial. The proportional liability principle may be capable of allocating damages in proportion to the level of fault of each party (the comparative negligence rule is based on a similar understanding¹¹⁸) and to any pre-existing pathological condition of the victim¹¹⁹. Moreover, it remains possible to fine-tune a proportional liability rule according to the descriptive taxonomy suggested by way of playing with inversions of the burden of proof when, for instance, interests of utmost relevance are at stake (e.g. health, dignity) switching back to an all-or-nothing rule.

The latter possible solution takes into account the fact that all damages – particularly personal injuries – are caused by a plurality of factors. Thus, the attribution of full liability upon the person, who only contributed to the result, seems unjust and might be inefficient as well in terms of deterrence¹²⁰. This is, as we shall see, the logic behind those cases that grant compensation for the loss of a chance.

“*The principle of liability proportioned to the causal efficiency of the negligent conduct*”²¹, which is behind the concept of proportional liability, was explicitly accepted by the previous Italian Criminal Code of 1889

¹¹⁷ F. Stella, *Giustizia e modernità*, 3rd ed. Giuffrè, Milan, 2003.

¹¹⁸ See also R.E. Cerchia, *Uno per tutti, tutti per uno. Itinerari della responsabilità solidale nel diritto comparato*, cit. fn. 4, 186 ff.

¹¹⁹ See Comandé, *L’assicurazione e la responsabilità civile come strumenti e veicoli del principio di precauzione*, cit. fn. 3, 66 ff. and L. Nocco, *Il “sincretismo causale” e la politica del diritto: spunti dalla responsabilità sanitaria*, cit. fn. 3, 309 ff.

¹²⁰ See lastly R.E. Cerchia, *Uno per tutti, tutti per uno. Itinerari della responsabilità solidale nel diritto comparato*, cit. fn. 4, 229 ff.

(the so-called “*Zanardelli code*”), which allowed for the application of a mitigating clause in relation to some clauses. Indeed, a judge had the duty (Arts. 367 and 368 of the old Italian Criminal Code) to diminish the punishment when the event was caused, also in part, by previously existing conditions, unknown to the offender, or by unexpected causes independent of the offender’s actions.

Here, our interest is focused only on the historical existence of a principle of reduction of the punishment, a principle closely connected to a critical reassessment of the “dogma” of the full compensation for damages, whose actual scope is today questioned in Italian scholarship¹²².

The fact that the above-mentioned mitigating rule was applicable only to criminal law at that time is irrelevant. Indeed, it would be useful, in a future perspective, to reach a higher flexibility of the instruments of tort law.

Currently, in Italy, several rules capable of setting up a general principle of this kind are already in place. For example, we may refer to Art. 79 of Decree of the President of the Republic (D.P.R.) 30th June 1965 no. 1124, which provides that “*the level of permanent reduction of the attitude to work, emerging as a result of an accident, when it may appear aggravated by pre-existing disabilities resulting from events unrelated to employment (...), must be take into account (...) the pre-existing disabilities (...)*”¹²³. Note, however, that this is an instance of welfare-state regulation, a public law answer to the issue of apportioning liabilities and costs.

We can also refer to further regulations which, in cases concerning multiple actors, provide that each of them is responsible for the damages they cause¹²⁴.

These rules are related to Art. 2055, paragraph 2 of the Civil Code, which disciplines joint and several liability, providing that “*the person who has compensated a victim has recourse against each of the other tortfeasors, to the extent defined by the seriousness of the respective fault and by the gravity of the derived consequences*”¹²⁵.

In our view, the above-mentioned rules provide the starting point to discuss the applicability of proportional liability in Italy.

We are aware that, in applying proportionate liability in today’s legal setting, there would be “winners” and “losers”. However, as previously stressed, proportional liability acknowledges that establishing a threshold for the recovery of damages, as the “all-or-nothing” rule does, would in any case result in quite different treatments of basically similar situations.

¹²¹ See Busnelli, *Nuove frontiere della responsabilità civile*, in *Jus*, 1976, 53.

¹²² See lastly G. Ponzanelli, *La irrilevanza costituzionale del principio di integrale riparazione del danno*, in M. Bussani (ed.), *La responsabilità civile nella giurisprudenza costituzionale*, E.S.I., Naples, 2006, 67 ff. and G. Pedrazzi, *Oltre il risarcimento: il danno aquiliano tra (integrale) riparazione e sanzione*, in P.G. Monateri, A. Somma (eds.), *Patrimonio, persona e nuove tecniche di “governo del diritto”. Incentivi, premi, sanzioni*, E.S.I., Naples, 2009, 1045 ff.

¹²³ Art. 484 Navigation Code; Art. 18 Law 8th July 1986, no. 349 abrogated; Art. 1 Law 14th January 1994, no. 20; Art. 93 Law 6th September 2005, n. 206. On the point, see Pucella, *La causalità “incerta”*, cit. fn. 74, 210 ff.

¹²⁴ On the point, see B. Tassone, *La ripartizione di responsabilità nell’illecito civile*, cit. fn. 4, 165 ff. and A. Gnani, *Commento sub art. 2055*, cit. fn. 4, 109 ff.

¹²⁵ See Busnelli, *L’obbligazione soggettivamente complessa*, cit. fn. 74, 136 ff. and A. Gnani, *Commento sub art. 2055*, cit. fn. 4, 189 ff.

Indeed, we consider that, in the presence of uncertain risks, as in those cases in which proportional liability may be applied, the apportionment of liability to the percentage of proof is fully consistent with the traditional goals of the tort system.

Furthermore, let us consider that, applying the more probable than not rule, for a plaintiff it is sufficient, in order to win the claim, to prove that her own reconstruction of the facts at trial has a “50% + n” chance of being true.

On the other hand, from a scientific point of view, we do not have instruments to measure such small probabilities. Thus, to compensate the whole alleged damage in such circumstances is totally anti-scientific¹²⁶.

This is also the reason why the Criminal Division of the Italian Supreme Court requires, as a condition to establish causation, a probability close to certainty even though it never quantifies this kind of probability (e.g. 98% or similar statistical percentage)¹²⁷.

In fact, as has been noted¹²⁸, only “(if there is less than a five-percent probability that the data will depart from the null hypothesis, the association between the exposure and the disease is considered statistically significant”.

Nevertheless, we must emphasize that an all-or-nothing rule can still offer several advantages. Among them, it can be claimed that it is less costly to the system and the parties to manage cases under an all-or-nothing rule since it does not require, all the time, a precise calculation of the respective liability because it works under the assessment of a preponderance of evidence¹²⁹. On the contrary, a proportional liability rule might be said to stimulate conflict on the actual percentage and therefore could ensue in greater litigation. In addition, proportional liability might force judges to surrender to scientific experts scattering the flexibility offered by legal and meta-legal concepts such as “*res ipsa loquitur*”, common sense, and background knowledge, which have always served as policy mechanisms instead of scientific expertise.

As we have previously noted¹³⁰, a recent Supreme Court decision has stated that “if a harmful event has been caused by a combination of human activity and natural factors (which are not themselves linked to the first by a nexus of causal dependence) the irrelevance of such factors cannot be accepted”¹³¹.

After this decision, a serious problem that remained to be addressed was the evaluation of the natural causal contribution to the assessment of damages. The Supreme Court is silent on this topic,

¹²⁶ See also R. Pucella, *La causalità “incerta”*, cit. fn. 74, 103 ff.

¹²⁷ See R. Blaiotta, *La causalità ed i suoi limiti: il contesto della professione medica*, in *Cassazione penale*, 2002, 198.

¹²⁸ D. Conway-Jones, *Factual Causation in Toxic Tort Litigation: A Philosophical View of Proof and Certainty in Uncertain Disciplines*, 35 *U. Rich. L. R.*, (2001-2002) 875, 924.

¹²⁹ As recently argued by Cass. 21st July 2011, no. 15991, cit. fn. 82

¹³⁰ Please refer to paragraph no. 4.1.3.

¹³¹ Cass. 16th January 2009, no. 975, cit. fn. 80.

hiding behind the power the judge is charged with in quantifying damages discretionarily, according to Art. 1225 c.c.¹³².

The problem is that according to such assessment, it would be necessary to engage scientific parameters, but the fact that such parameters are able to make such an accurate quantification is really dubious.

The rejection of the proportional liability theory made by the subsequent case law is not able, in itself, to solve this aspect, since also the new case law trend, as we have pointed out previously, recognizes the need to take into account the pre-existing conditions of the victim in the quantification of damages.

All in all, this is, to some extent, a problem faced by proportional liability itself since, as authoritative medico-legal scholarship noticed¹³³, technological progress is such as to make clear that the causes of an illness are not unique and one, but several.

6. The Second Category of Proportional Liability: Indeterminate Parts of Harm

The second category of proportional liability which has been proposed¹³⁴ includes cases in which it has been established that the tortfeasor caused some harm to the victim, and the question of causal uncertainty concerns the particular harm caused by the defendant and that which has been caused by another causal factor.

Therefore, it is certain that defendants have contributed to cause the damage, but the amount of their respective causal contributions is not certain (since it is impossible to ascertain which tortfeasor actually caused the harm). However, we hypothesize that this ignorance is not due to a lack of scientific knowledge¹³⁵.

In our opinion, those cases may surely be connected to the rule contained in Art. 2055 c.c. in the field of joint and several liability. We do not think that proportional liability can be employed in such cases, which, in our opinion, fall within the category of cases where the uncertainty of facts is not due to scientific data, but only to the course of the events. As will be explained subsequently¹³⁶, we believe

¹³² This is another reason why Cass. 21st July 2011, no. 15991, cit. fn. 82, rejected the proportional liability rule.

¹³³ See F. Introna, *Il problema della causalità tra diritto e medicina*, in *Rivista italiana di medicina legale*, 1992, 7 f. See also U. Beck, *La società del rischio*, It. translation, Carocci, Rome, 2000, 81 ff. and 219 ff.

¹³⁴ Please refer again to I. Gilead, M.D. Green, B.A. Koch (eds.), *Proportional Liability: Analytical and Comparative Perspectives*, cit. fn. 1.

¹³⁵ In the proposed example (please refer to the forthcoming publication mentioned earlier) the plaintiff was harmed by three dogs, belonging to three different owners and it is uncertain which specific part of the injury was caused by which dog.

¹³⁶ Please refer to paragraph no. 8.

that proportional liability should be applied only in cases of scientific uncertainty, due to the relevance exercised here by the precautionary principle.

Therefore, we think it is better to apply ordinary rules to these cases. Moreover, the double presumptive mechanism we mentioned earlier, which risks overburdening the defendant who is only partially responsible, does not materialize in these cases¹³⁷.

Indeed, the tortfeasor's position does not appear to be excessively burdensome, at least when the group of supposed tortfeasors is not excessively numerous.

Sub-category B2 refers to cases where the other causal factor, whose influence to the damage is certain but cannot be precisely gauged, is a natural cause.

Following the principle of the relevance of natural causal factors on the amount of damages, which has been justified before in light of present and past Italian law, as well as in light of the precautionary principle, and has been adopted by the Italian Supreme Court¹³⁸, we think that in those cases a fair reduction of the amount of damages should be applied.

Nevertheless, we must recall that, as we have stressed before¹³⁹, the exact evaluation of the natural causal contribution to the assessment of damages still remains to be addressed. This is a problem faced by each kind of proportional liability, *i.e.* by each type of liability not based on an all-or-nothing approach.

7. The Third Category of Proportional Liability: Uncertain Materialization of Risk

The third category in the proposed taxonomy addresses cases in which the causal uncertainty regards the existence and the amount of future damages. In other words, it is uncertain whether a tortious conduct will actually cause any future harm and how severe the potential harm is.

One of the instances in which Italian case law has awarded damages similar to those mentioned in this group, through the notion of loss of a chance, regards cases concerning “light” labelled cigarettes.

The litigation in this field arose from the decision of the Italian antitrust authority, which had considered the description “light” on the packaging of cigarettes as deceptive advertising¹⁴⁰. Later, some small claims court (*giudici di pace*, or justices of peace) awarded the damage “*suffered by smokers of light*

¹³⁷ Please refer to paragraph no. 4.3.

¹³⁸ Please refer to paragraph no. 4.1.3.

¹³⁹ Please see paragraphs nos. 4 and 5.

¹⁴⁰ See R. Bianchi, *Danno da pubblicità ingannevole e consumatori: in Cassazione un'apertura condizionata*, in *Responsabilità civile e previdenza*, 2008, 605 ff.

*cigarettes, which should have less and condensed nicotine, considering that such a caption is deceptive since such cigarettes are not less dangerous to health than normal cigarettes*¹⁴¹.

It has been thought, in fact, that “*the tobacco-maker company which merchandizes cigarettes with the caption “light” or “extra light”, since such words combine a deceptive promotional message which gives rise to a false opinion about their lower harmfulness, is legally responsible towards a smoker who can prove to have bought and smoked such a product again and again and who is entitled to compensation for the damage due to the loss of a chance corresponding to the non-attainment of the aim of a lower health damage, to be settled equitably*”¹⁴².

Actually, in its operative results such a solution has to be coordinated with other decisions to award not the whole amount of the damage, but the damage corresponding to the higher risk to health from smoking “light” cigarettes compared to the lower – or non existing - damage that, on the ground of the deceptive promotional message, could have been produced¹⁴³.

In our view, these cases should be, in a highly context-sensitive approach, either considered as actual losses, when the increased risk of materialization of a harm can be ascertained leading to proportional liability, or as cases in which there is no loss at all and compensation should not be offered until an actual loss materializes. Of course, the latter qualification of the case might create time limit problems in cases where a damage emerges only a long period of time. Yet, these losses seem in any event too speculative.

Actually, as scholars have pointed out¹⁴⁴, damages which have been awarded in the above-mentioned cases are not intended to cover the loss of a chance to suffer a lower health damage, but rather cover the non-pecuniary loss which is “*in abstracto*” recoverable according to Art. 2059 c.c. Indeed, in those cases the plaintiff requests recovery of the damage caused by the fear of contracting a disease. Nevertheless, these damages, similarly to the ones awarded in the so-called “Seveso case” by the Court of Cassation¹⁴⁵, need to meet the requirements fixed by the above-mentioned Art. 2059 c.c.

Today, following authoritative intervention on this topic by the Italian Supreme Court¹⁴⁶, which stressed, among several things, the need to prove the existence of the non-pecuniary damage itself, the award of such damages is unlikely.

¹⁴¹ Giudice Pace Portici 7th Novembre 2003, in *Giurisprudenza napoletana*, 2004, 79.

¹⁴² Giudice Pace Napoli 1st September 2004, in *Il Giudice di pace*, 2005, 131, commented on by F.M. Andreani, *Sigarette “lights”: pubblicità ingannevole e perdita di “chance”*.

¹⁴³ Giudice Pace Napoli 28th January 2005, in *Diritto e giustizia*, 2005, 27, 32.

¹⁴⁴ See R. Bianchi, *Danno da pubblicità ingannevole e consumatori: in Cassazione un’apertura condizionata*, cit., 605 ff. and M. Di Marzio, *Il danno da pericolo diventa esistenziale. Ma nel mosaico mancano molti tasselli*, in *Diritto & Giustizia*, 2005, 27, 32 ff.

¹⁴⁵ Cass. Sezioni Unite 21st February 2002, no. 2515, in *Danno e responsabilità*, 2002, 499, commented on by G. Ponzanelli, *Una nuova stagione del danno non patrimoniale? Le Sezioni unite e il caso Seveso*

¹⁴⁶ See Cass., Sezioni Unite, 11th November 2008, nos. 26972, 26973, 26974 and 26975, cit. fn. 68.

Indeed, very recently, following the above-mentioned decisions, the Italian Supreme Court reversed a decision belonging to the line of cases cited above expressly suggesting that harm had not been demonstrated¹⁴⁷.

Another example to be considered here is that concerning the non-admission to or failure of competitive exams due to the bad faith of the employer.

These cases are characterized by the uncertainty of the damage, since the plaintiff is deprived of future possibilities, without any certain possibility that the possibility may arise again in the future. However, in such cases, the loss of a chance of success is awarded by courts¹⁴⁸.

It must be recalled also that uncertain future harms might sometimes be awarded under contractual liability rules. An example of those damages is the prejudice caused to the worker by the imposition of disqualifying duties for which loss of a chance in career progression is awarded because of a violation of Art. 2103 c.c.: “*An employee must be assigned to the functions for which she was recruited or to the functions corresponding to the higher category subsequently acquired or to the functions equivalent to the latest actually performed, without suffering any decrease in payment*”¹⁴⁹.

Theoretically, the compensation of these kinds of damages in Italy would seem to be excluded pursuant to Art. 1225 c.c. which states that “*if a default or a delay does not depend on the debtor’s malice, the compensation is limited to the damage expected at the time the obligation arises*”¹⁵⁰. Nevertheless, the absolutely dominant case law awards damages deriving from the above-mentioned hypothesis.

Art. 1225 c.c. establishes a principle opposite to full damage compensation¹⁵¹, by limiting the compensation to cover only expected damages in cases where the defendant is negligent.

Such a rule may not be applied to tort liability since it is not provided for in Art. 2056 c.c. which states that the quantification of damages in tort is performed pursuant to Arts. 1223, 1226 and 1227 c.c. It follows that unforeseeable damages can be compensated under the law of torts.

On the other hand, case law has actually reduced the gap between contract and tort liability concerning the delimitation of compensable damages¹⁵². Case law has been influenced by the current pro-victim policy. Thus, such an evaluation may lead, in particular circumstances, to the inclusion of future and possible damages as compensable ones. In fact, this evaluation is influenced, among other things, by the nature of the relationship (particularly in cases of contractual liability) and by other specific factors¹⁵³.

¹⁴⁷ Cass. Sezioni Unite 15th January 2009, no. 794, in *Foro italiano*, 2009, 3, 1, 717.

¹⁴⁸ M. Feola, *Il danno da perdita di chances*, cit. fn. 4, 51 ff.

¹⁴⁹ Our translation.

¹⁵⁰ Our translation.

¹⁵¹ A. Gnani, *Sistema di responsabilità e prevedibilità del danno*, Giappichelli, Turin, 2008, 159 ff.

¹⁵² L. Bigliuzzi Geri-U. Breccia-F.D. Busnelli-U. Natoli, *Diritto civile*, 3, cit. fn. 109, 781 ff.

¹⁵³ A. Gnani, *Sistema di responsabilità e prevedibilità del danno*, cit. fn. 151, 164.

Part III. In Search of a Reasonable Proportional Liability Rule for Uncertain Settings

Once the use of proportional liability is approved, it is necessary to limit its scope. For example, one might argue that it should apply in all cases where there is no evidence on the causal link “beyond any doubt” (and not “beyond any reasonable doubt”).

Therefore, proportional liability would become the only standard, since it is not humanely possible to overcome the existence of doubts. However, if we suppose that, in ninety/ninety-five per cent of cases, the conduct may cause the damage for which compensation has been requested, such statistical percentage, as a rule, represents such a high degree of rational probability that it would lead to a verdict of condemnation also in a criminal lawsuit.

We think that in a civil action, under such a percentage of probability, a condemnation for the whole damage may be justified without strictly applying proportional liability¹⁵⁴. On the contrary, proportional liability should coherently (and paradoxically) lead to a decrease in the amount of compensation to be awarded.

By following such an argument, on the other hand, even one per cent of the suffered damage should be compensated, if a probabilistic percentage of risk is assessed. Yet, this leads to a real “damages lottery”, increasing highly the discretionary judicial assessment of causation as well as administrative costs.

In addition, the scientific ability to ascertain the actual probability of a concurring cause (or negligence where appropriate) might be unrealistic, and the actual entire shift to proportional liability might result in a reduction in the protection offered to fundamental rights and a move which is unjustified in light of the current policy course.

The move towards proportional liability grounded solely on the policy consideration mentioned above might be too high a cost for surrendering the flexibility offered by the technical discretionary evaluation of a judge, in given cases.

As we stressed in relation to the recoverability of chances, to be recoverable, the probability that a defendant caused the loss should, at least, be “worth”¹⁵⁵ it.

Thus, in conclusion, we propose to exclude the applicability of proportional liability in extreme cases (for instance, less than ten per cent and over ninety per cent). However, it would be naïve to hide the difficulties involved with setting and justifying limits in a rational way or on efficiency grounds.

¹⁵⁴ For a similar view, applying the loss of a chance theory, see M. Feola, *Il danno da perdita di chances*, cit. fn. 4, 156 ff.

¹⁵⁵ See M. Bilancetti, *La responsabilità penale e civile del medico*, 6th ed., Cedam, Padua, 2006, 975.

Vice versa, cases in which the probabilities of the risk randomly fluctuate above and below 50% (which might be called, for instance “borderline cases”), are those in which proportional liability promotes efficiency, since compensating the whole damage even though there were «about» 50,01% of probabilities (or vice versa) would produce a strong difference in the treatment of basically similar situations¹⁵⁶. Yet all the above hold true on the condition that full (and non-costly) information is available to all players.

In addition, we must take into account that proportional liability might theoretically produce regressive effects if the rule is not paired with procedural rules which, for instance, reverse the burden of the proof in cases where the plaintiff (or the defendant) is ill-suited to demonstrate respective roles in causing damage. For example, in medical malpractice, when there is a 49% chance of materialization of the risk of harm, this instance is today considered full evidence of malpractice. The rule of proportional liability can also be construed as a consequence of a rebuttable presumption of full liability (all or nothing rule) on the defendant once the plaintiff has established the fault beyond certain thresholds of causation.

In our opinion, proportional liability, in itself, should not create any risk of increasing administrative costs related to the judiciary process.

The adoption of proportional liability actually includes the possible risk that such kind of “compromise logic”, which is behind the reduction of the compensatory amount, rightly induced by the impossibility of charging the tortfeasor’s conduct with the whole damage, may lead judges to accept, as sufficient, less convincing evidentiary assessments. In other terms, being aware that, at most, only part of the damage is compensated, judges may tend, more or less unconsciously, to be more permissive in assessing proof.

Furthermore, one more negative consequence may be that the out-of-court settlement of litigations would be made more difficult if chancy and changeable evidentiary assessments were adopted.

On the other hand, today, settlements are discouraged in all “borderline” cases by the fact that small differences in the assessment of probability, which is a little higher or lower than 50 per cent, lead to very different judicial outcomes.

Indeed, if the threshold is a fixed and static one, and there is no way to be sure that we are above or below it, the parties have no incentives to settle. In these terms, on the contrary, proportional liability may favour alternative dispute resolutions. These statements show that the actual argument of administrative costs and incentives to settle depend more on procedural rules than on the substantive rule of proportional liability vs. all-or-nothing as alternative solution concepts.

¹⁵⁶ Please refer also to what has been illustrated *supra*, paragraph no. 4.5.

Moreover, we think one of the problems which proportional liability might abstractly produce, *i.e.* the incentive to litigation, may be easily prevented by excluding compensation in cases where only a very low percentage may be proven (for example, 5 – 10%) and by restoring an all-or-nothing rule in the reverse case.

Conclusively, proportional liability represents clearly a significant change in the tort system, which we think must not be applied in a far-reaching way even though it is already somehow employed in courtrooms.

Firstly, it should be applied only in cases of scientific uncertainty. Even though it is impossible here to deepen this argument, the rationale behind the application of the proportional liability doctrine is the principle of precaution, as it has been argued¹⁵⁷, since some modern economic activities bear uncertain risks¹⁵⁸.

It does not interest us here to know whether such risks are sufficient to forbid that particular economic activity. On the contrary, it is interesting to reflect on the possible effects, from the angle of tort law, and when such an activity may give rise to damages. Today, applying both ordinary rules, in particular in relation to application of the “more probable than not” standard, and *a fortiori* applying the “beyond any reasonable doubt” standard of proof, it is difficult to suppose that the victim may get compensation in similar cases. Thus, proportional liability offers an answer to the demand for social justice, awarding some damages, but at the same time, limiting compensation to the quantity of proofs the victim can provide at trial and according to socially accepted scientific evidence.

If that is the objective of proportional liability, it may be applied only in “borderline cases” (following the definition which we have previously given) which are characterised by scientific uncertainty, because there we can locate its strong rationale.

Otherwise, it may become an instrument allowing plaintiffs, unable to prove claims fully due to demerits, to successfully get compensation, albeit partial. It may also provide for the opportunity to avoid paying damages caused to a defendant who uses the fact that there is insufficient contrary evidence.

Another rationale for the selective application of proportional liability may lie in the logic of policy. For instance, this may arise in cases concerning work-related harassment. It is well known that usually the victims of work-related harassment are the most “vulnerable” individuals. Due to the victim’s

¹⁵⁷ See on this point G. Comandé, *L'assicurazione e la responsabilità civile come strumenti e veicoli del principio di precauzione*, cit. fn. 3, 66 ff. See also G. Schamps, *The Precautionary Principle versus a General Principle for Compensation of Victims of Dangerous Activities in Belgian Law*, in H. Koziol, B.C. Steininger (eds.), *European Tort Law 2004*, Springer, Wien-New York, 2005, 121 ff. for a “radical” view of application of the precautionary principle in tort liability.

¹⁵⁸ See H.A. Cousy, *Risks and Uncertainties in the Law of Tort*, in H. Koziol, B.C. Steininger (eds.), *European Tort Law 2006*, Springer, Wien-New York, 2008, 2 ff.

frequent mental pre-conditions, often it may be impossible to establish with certainty (or even in a verisimilar way) whether the damage has been caused by the tortfeasor(s) or whether it can be attributed to the victim's characteristics.

Victims' pre-conditions may have an impact in the form of the importance of their harm, compared to the usual effects of that kind of detrimental conduct on "normal" individuals. Nevertheless, it may also happen that such conduct do not cause harmful effects to some individuals, or, to the contrary, the same conduct may cause disastrous results for other people.

In abstract terms, in such cases there may be room for the application of proportional liability, since there is an uncertainty, possibly due to the lack of scientific (for example, psychiatric) data. However, we think that the risk of the possible pre-existing vulnerability and, in general, of uncertainty is to fall exclusively on the tortfeasor¹⁵⁹. In these cases, it appears clear to us that the subjective element of the tort (malice or recklessness, for instance) plays a role in triggering (or not) proportional liability and it influences the procedural rules to be adopted; for instance, a proportional liability with reversal of the burden of proof.

Thus, if the perimeter for the application of proportional liability should be decided according to the logic of efficient deterrence, it might be said that here there is no room for the application of this form of liability in these cases. Accordingly, the harasser should be liable for the whole damage, even that which has not been caused by her, thus stressing paradoxically the deterrent and punitive effect of liability in tort. The same conclusion might be reached in other similar cases of gross negligence or malice or when interests of utmost relevance are at stake (e.g. health, dignity).

Harassment conducts are basically aimed at damaging the victim, since it is socially expected that the person chosen as a victim is more sensitive and vulnerable: in other terms, a "harassed" person is usually selected exactly because she is more vulnerable.

Such torts are characterized by malice, so we think it is correct to outline their different treatment compared to regular negligence based torts, since the malicious conduct represents a higher negative value than the negligent conduct. The concept is clearly shown in the principle established for contractual liability by Art. 1225 c.c., pursuant to which "*if the default or the delay does not depend on the debtor's malice, the compensation is limited to the damage which might be expected at the time when the obligation arose*"¹⁶⁰.

¹⁵⁹ Please refer to L. Nocco, *Le concause naturali fra diritto e politica... del diritto*, in *Liber amicorum per Francesco Donato Busnelli. Il diritto civile tra principi e regole*, cit. fn. 3, 635 ff.

¹⁶⁰ On this point, see lastly A. Gnani, *Sistema di responsabilità e prevedibilità del danno*, cit. fn. 151, 35 and 205 ff.