PROOF OF CAUSATION IN TORT CASES

1. INTRODUCTION

In any national legal system (regardless of whether it belongs to civil law or common law tradition) plaintiff in order to succeed has to prove the relationship of causality between wrongful acts of the defendant and the damage plaintiff sustained. Whenever plaintiff fails to do so court dismisses the suit. In other words, in all national legal systems it is the plaintiff who bears the burden of proof (onus probandi) of causation. This rule is justified by the fact that it is the plaintiff who initiates litigation and involves others in it; it is the plaintiff who seeks to change the existing state of affairs (status quo) and to reallocate costs, i.e. to shift damage he or she sustained onto some other person, namely defendant.

The burden of proof has to be distinguished from the standard of proof. As long as the burden of proof is concerned all national legal systems seem to be unanimous, but when it comes to the standard of proof there is a significant divergence between national laws. Whereas burden of proof indicates which one of the parties has to prove certain fact (or, to be more precise, whose failure it is when the fact is not proven), standard of proof indicates when the fact has to be deemed proven and the party has to be deemed as having discharged the burden. Put simply, burden of proof defines what is to be proven, standard of proof – how it has to be proven. In respect of the latter there is a sharp distinction between common law and civil law systems.

The aim of this article is to compare standards of proof of causation in common law and civil law systems from the pragmatic point of view, i.e. from the perspective of practical outcomes entailed by each of the approaches. With comparative analysis in the background the article also aims to reveal the peculiarities of Ukrainian law in the respect of the issue raised.

2. MODEL CASE: NUTSHELL IN A PRUNE

Let us take the following hypothetical situation as a model for further analysis. Having bought walnut stuffed prunes the Consumer brakes his tooth due to the nutshell piece in one of the sweets. In order to get his harm indemnified the Consumer brings an action against the Producer demanding the latter to compensate the costs of the tooth restoration. Let us further assume (and this assumption seems to be the most plausible) that forensic evidence can only confirm that the tooth crack was caused by a contact with some solid material; however, it is impossible to identify the exact material, let alone proving that the material was contained in one of the sweets the Consumer ate. There were no witnesses and neither video-taping of the process of consuming the sweets. Therefore, the crux of the problem in this case is proving the causal link between the defective sweets and broken tooth. Is it possible to prove it in the first place? If yes, then how?

The first thing that comes to mind is the idea to do a test purchase: to buy some quantity of sweets and to find out the frequency of nutshell’s appearance in the sweets. But what if it appears that every 5 sweets out of 100 contain nutshell? Would it be enough for the court to consider the causation proven in the case concerned? Would the frequency of 51 or 85 or 99 per 100 be enough? The problem raised is a complex one and its solution depends on numerous factors. Among those factors the standard of proof established in particular legal system constitutes a factor of major importance.

3. COMMON LAW APPROACH: BALANCE OF PROBABILITIES

In common law there are two different standards of proof: one for criminal cases and one – for civil cases3. The standard applied in criminal cases is known as ‘proof beyond reasonable doubt’ (hereinafter BRD-standard). BRD-standard means that certain fact is deemed to be proven as long as existing evidence support the probability of the fact to such a degree that excludes any reasonable doubts (that is to say that there could be some doubts, but only ‘unreasonable’ ones, i.e. based on far-fetched assumptions that could hardly be true in everyday life).

In Miles v. United States, 103 U.S. 304 (1880) US Supreme Court put it as follows: “[t]he evidence upon which a jury is justified in returning a verdict of guilty must be sufficient to produce a conviction of guilt, to the exclusion of all reason-

able doubt”. In *Miles v. United States* one can find also an illustrative instruction to the jury saying that: “[t]he prisoner’s guilt must be established beyond reasonable doubt. Proof beyond a reasonable doubt is such as will produce an abiding conviction in the mind to a moral certainty that the fact exists that is claimed to exist, so that you feel certain that it exists. A balance of proof is not sufficient. A juror in a criminal case ought not to condemn unless the evidence excludes from his mind all reasonable doubt”.

This standard sets quite a high threshold that must be reached by the prosecution in order for the accused to be convicted of a crime. *BRD*-standard demands conviction that is close to definite certitude of the court or jury that the statements substantiating criminal charge are true.

In contrast, in civil matters another standard of proof applies. It is called ‘preponderance of probabilities’, ‘preponderance of evidence’ or ‘balance of probabilities’ (hereinafter – *BoP*-standard). Compared to criminal standard, it sets the threshold much lower: in order to succeed a party has to convince the court that the probability of his or her assertions being true is higher than probability of the opposite⁴. In *Re H (Minors) (Sexual Abuse: Standard of Proof) [1996] AC 568* Lord Nicholls of Birkenhead said: “[t]he balance of probability standard means that the court is satisfied an event occurred if the court considers that, on the evidence, the occurrence of the event was more likely than not”. Put in figures it means that a fact is considered to be proven (for the purpose of civil litigation) whenever the party bearing the burden of proof manages to demonstrate that the probability of the fact alleged is more than 50%⁵.

That being said, common law judges openly acknowledge that such a standard does produce some margin of error. In other words, it can happen that the decision made is based on the facts that are not true, because 50+ probability leaves much room for opposite assumption being true. Lord Phillips in *Sienkiewicz v Greif* [2011] UKSC 10 stated: “[t]his broad test of balance of probabilities means that in some cases a defendant will be held liable for damage which he did not, in fact, cause. Equally there will be cases where the defendant escapes liability, notwithstanding that he has caused the damage, because the claimant is unable to discharge the burden of proving causation”.

It has to be mentioned, though, that errors (notwithstanding they are not always admitted) are always inevitable no matter what standard applies. In this

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respect BoP-standard has two advantages. Firstly, it minimizes the overall cost of errors; secondly, it allocates the risk of some facts being unprovable in a balanced manner.

Regardless of the standard set, there are always two types of errors: false positive (when the fact is considered to be proven, though in deed it did not happen) and false negative (when the fact is considered to be not proven, though in deed it did happen). The higher the threshold set by the standard, the more difficult it is to reach it, and hence the less the number of false positive errors (i.e. situations where despite some fact did not exist it is considered as proven) in comparison to false negative. Therefore, it can be said that the standard of proof setting high threshold is in some way biased against the party who bears the burden of proof and in favor of the adverse party. Severity of the standard applied in criminal cases is justified by the fact that as far as criminal charge is concerned false positive errors are considered to be worse than false negative ones: it is better for the system sometimes to absolve guilty persons and never to convict innocent ones than sometimes to convict innocent persons and never to absolve guilty ones.

On the contrary in civil litigation both types of errors are equally weighted, because every dollar mistakenly recovered from the defendant has the same value as a dollar mistakenly not obtained by the plaintiff. That is why BoP-standard is an honest and balanced standard that equipoises positions of plaintiff and defendant as to proving relevant facts.

What solution can be obtained if we apply BoP-standard to the model situation with nutshell in a prune? At the first glance it may seem that application of BoP-standard in this case means that the Consumer can succeed if the sample purchase shows frequency of defective sweets > 50 per 100. However, it would be a hasty judgement. The fact that 51 sweets out of hundred contain nutshell means that when you buy one sweet there is a 51% chance that it is defective. At the same time the Consumer’s tooth could have been broken due to numerous other reasons (e.g. fall, hit or small rock contained in salt or some other product) that were not taken into account in the above calculation.

That is why the frequency of defective sweets is not equal to the probability of causal nexus between defective sweets and the Consumer’s harm. In this respect some other statistics could be useful, for instance that amongst all cases of broken teeth 20% are caused by the patient’s fall; 10% – by rapid temperature change (eating ice-cream right after hot beverage); 10% – by small rocks that

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get into food with salt; and 60% – by nutshell in walnut stuffed prunes. Need-
less to say that in relation to this particular situation it is improbable that such
a statistics exist. Nevertheless, a broad statistical data has been collected in rela-
tion to many other diseases (perhaps, the strongest example is the statistics on
carcinogens). Collection and analysis of the statistical data on causes of various
decases is the concern of epidemiology. In this respect there is a lot of law lit-
erature addressing the problem of whether epidemiological data (also known as
‘naked statistics’\textsuperscript{11}) can serve as a reliable evidence of causation in concrete case\textsuperscript{12}.

The main argument against recognizing epidemiology as an evidence consists
in opposing ‘general causation’ and ‘specific causation’\textsuperscript{13}. It is said that unlike
the epidemiology that deals with aggregates, the court deals with individual case.
Thus, even if, according to epidemiology, the disease of the kind like plaintiff
suffers in 60% cases is caused by agent X, nevertheless it does not prove for sure
that particular plaintiff did contract the disease due to the agent X. However,
the argument does not seem much convincing if one takes seriously \textit{BoP}-stan-
dard of proof, since this standard does not demand certainty. Therefore, from
the standpoint of \textit{BoP}-standard 40% chance of error should not preclude finding
the fact proven.

Criticizing the probative value of ‘naked statistics’ many scholars refer to so
called ‘proof paradox’\textsuperscript{14}. Imagine that a pedestrian was hit by a regular bus. It is
known that 90% of all the regular buses in town are owned by the Blue Bus
Co\textsuperscript{15}. Can the Blue Bus Co be held liable solely on the ground of statistical data
(according to which the probability of the Blue Bus Co vehicle being involved in
the accident amounts to 90%) in the absence of any other information, \textit{e.g.} about
the color of the bus that hit the pedestrian, routes where Blue Bus Co vehicles
drive or information about damaged buses etc.?

In this context the concept of ‘resiliency of evidence’ is employed. High resil-
iliency of particular evidence means that probative value of the evidence can hardly
be negated by new evidence. Instead, low resiliency means that probative value
of particular evidence can easily be rendered null by new evidence obtained after-
wards. As T. Ward puts it “[t]he resiliency of the evidence is its susceptibility
to revision in the light of further evidence”\textsuperscript{16}.

\begin{itemize}
\item[]\textsuperscript{11} T. Ward, \textit{Expert Evidence}…, p. 580.
\item[]\textsuperscript{12} See: T. Ward, \textit{Expert Evidence}…, p. 580; S. Steel, \textit{Sienkiewicz v Grief and exceptional doc-
\item[]\textsuperscript{13} D. Hamer, \textit{Probability, Anti-Resilience, and the Weight of Expectation}, “Law, Probability
C. R. Williams, \textit{Burdens and Standards}…, p. 184.
\item[]\textsuperscript{15} See: D. Hamer, \textit{Probability, Anti-Resilience}…, pp. 136–137.
\item[]\textsuperscript{16} T. Ward, \textit{Expert Evidence}…, p. 583.
\end{itemize}
It can be said that statistical data (no matter how high the probability it indicates) is of low resiliency, since finding new individualizing evidence can nullify the value of statistics. For example, if in the Blue Bus case the pedestrian recalls that it was a red bus that hit him, the statistics cannot be taken into account anymore.

In view of the above one has to conclude that even when the BoP-standard is applied causation usually cannot be proven solely with reference to statistical data not supported by some individualizing evidence. Instead, reliable statistical data coupled with some individualizing evidence can lead the court to the conviction that existence of causal nexus is more likely than not. Returning to sweets case let us assume that there is ‘epidemiological’ data indicating that 60% of all broken teeth broke because of a nutshell in walnut stuffed prunes. Then, if we add high frequency of defective sweets (say 70%), receipt from the grocery store and the Consumer’s testimony, would it be enough for causation to be deemed established? As long as BoP-standard is applied affirmative answer seems to be quite plausible.

4. CIVIL LAW APPROACH: INNER CONVICTION BEYOND REASONABLE DOUBT

Civil law system starkly differs from common law because unlike the latter it recognizes only one standard of proof applicable both to criminal and civil cases.

Moreover, it has to be noted that standard of proof is a twofold concept: it has objective and subjective aspects. On the one hand standard of proof can be defined as a certain level of conviction that trier of fact has to have in order to conclude that some statement is true (subjective aspect). However, each and every legal system demands fact trier’s conviction to be based on evidence obtained; otherwise (if the conviction is groundless and arbitrary) it cannot serve as a justification for the conclusion of fact. Therefore, the standard of proof can also be defined as a certain ‘amount’ of evidence that is necessary to justify the conclusion that some fact is true (objective aspect).

In comparative studies it is often underlined that unlike the common law BoP-standard (which is focused on objective aspect) civil law standard is focused on subjective aspect: in order to consider some fact as having been proven judge

17 Ibidem, p. 585.
has to gain inner conviction in trueness of this fact. Thus it is this ‘inner conviction’ (Fr. *intime conviction*) that serves as a criterion for deciding whether a party has discharged the burden of proof or not.

Pursuant to Sec. 286 of German Code of Civil Procedure “[t]he court is to decide, at its discretion and conviction, and taking account of the entire content of the hearings and the results obtained by evidence being taken, if any, whether an allegation as to fact is to be deemed true or untrue”. As M. Brinkmann notices “[i]n its interpretation of the rule, the German Federal Supreme Court underlines the subjective component of the process of weighing the evidence. The court emphasizes that even a very high objective probability as such does not suffice to treat a fact as established as long as it does not induce the judge’s conviction of its truth”\(^{21}\). G. Wagner puts it even more plainly saying that “[a]s such, a probability of 0.5 is just as insufficient as probabilities of 0.6 or 0.7”\(^{22}\).

Although French legislation does not define the standard of proof in a direct manner, in French Civil Code and Code of Civil Procedure one can find provisions implying that civil litigation aims at finding the truth\(^{23}\). Thus the corollary should follow that judicial decision cannot be based on the statements that are not true but merely probable.

Having regard to the above many scholars conclude that universal standard of proof applicable in civil law system both to criminal and civil cases is nothing more or less than standard beyond reasonable doubt\(^{24}\).

As long as BRD-standard is applied the plaintiff in the sweets case most probably will lose the case, because no matter how high the frequency of defective sweets and how high the general probability of breaking a tooth due to a nutshell, there always remains room for absolutely reasonable doubts as to the alternative cause of breaking the tooth.

Ukrainian law evolves in the context of civil law tradition. Similarly to German and French law Art. 80 (para. 2) of Ukrainian Code of Civil Procedure reads: “whether the evidence suffices to establish relevant facts is to be decided by the court at its inner conviction”. Though in Ukrainian legal doctrine the standard of proof concept is not payed much attention, there is no doubt that civil and criminal standards are not distinguished.

What is more, in Ukrainian law one can find a unique provision not encountered in any European law. Following the Code of Criminal Procedure (Art. 373 para. 3) Ukrainian Code of Civil Procedure states that “[p]roof cannot be based on assumptions” (Art. 81 para. 6). Being interpreted literally this provision means that as long as some statement remains to be an assumption (no matter how prob-

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\(^{21}\) *Ibidem*, p. 879.


able it is) the court cannot base its decision on it, because a judicial act can be underpinned only by statements that are true and hence absolutely exclude the possibility of any other alternatives. However, this approach seems extremely unrealistic: modern outlook has abandoned the idea of the Enlightenment according to which there is only one absolute truth amongst dozens of lies. Perhaps, the most complicated challenge modern tort law faces with is the necessity for the tort law to cope with uncertainty of causation. In response to this challenge many national courts invented new approaches to causation problem in asbestos exposure cases\textsuperscript{25} DES-cases\textsuperscript{26} and numerous cases concerning medical malpractice. Best practice of national courts demonstrate that tort law can and should master the uncertainty. Modern law cannot ignore the probability; moreover, from the point of view of modern epistemology the very concept of human’s knowledge has changed: the dividing line between certain (knowledge) and probable (assumption) is getting more and more fuzzy. And tort law has to take it into account.

As to the sweets case Ukrainian court for sure would conclude that causal nexus is not proven, since notwithstanding all evidence mentioned in the article (‘epidemiological’ statistics, frequency of defective sweets, receipt from the grocery store and even the Consumer’s testimony) allegation of causal relationship between broken tooth and defective prune remains to be an ‘assumption’. This result, however, does not seem to be optimal if one takes into consideration that on the one hand there is a producer that acted wrongfully and hence endangered consumers while on the other hand there is a consumer that suffered damage of exactly that kind, the risk of which was created by the producer. Therefore, Ukrainian law science has to search for alternative solutions of the problem posed in this case.

\section*{5. FOUR POSSIBLE SOLUTIONS}

Thus, first possible solution is to reverse the burden of proof. It would mean that whenever the plaintiff suffers the damage of exactly that kind, the risk of which was created by the defendant the causal nexus is presumed to exists


and hence it is the defendant who has to prove that in fact damage was caused by some other reason. This approach was applied by California Supreme Court in two hunters case – *Summers v. Tice*, 33 Cal.2d 80. In this case the plaintiff was injured by one of two hunters; but since both were armed with the same shotguns it was impossible to prove which hunter’s shot injured the plaintiff. Justice Carter stated: “[w]hen we consider the relative position of the parties and the results that would flow if plaintiff was required to pin the injury on one of the defendants only, a requirement that the burden of proof on that subject be shifted to defendants becomes manifest. They are both wrongdoers – both negligent toward plaintiff. They brought about a situation where the negligence of one of them injured the plaintiff, hence it should rest with them each to absolve himself if he can. The injured party has been placed by defendants in the unfair position of pointing to which defendant caused the harm. If one can escape the other may also and plaintiff is remediless”.

Despite some similarity, the sweets case significantly differs from *Summers v. Tice*. In two hunters case reversing the burden of proof is justified because of several reasons. First, all the alternative causes are wrongful acts (which is not the case in situation with sweets). Second, hunters are better placed (than injured person) to prove whose shot caused injury (which is also not the case in situation with sweets). Third, hunters had an opportunity to cooperate with each other so as to eliminate the uncertainty (which is also not the case in situation with sweets). For this reason, we believe that reversing the burden of proof is not an appropriate solution for the sweets case.

Second solution could be the recalibration of the standard of proof for certain categories of cases. This approach, however, needs legislative measures defining these categories and describing the exact way of recalibration.

Third solution. Maybe the very subjecting someone to abnormal risk should be recognized as a compensable damage? in which case there is no problem with causation, since causal nexus has to be established between wrongful behavior and risk creation (and not between wrongful behavior and actual harm).

The prominent recent case of *Sienkiewicz v Greif (UK) Ltd; Knowsley MBC v Willmore* [2011] UKSC 10 can be seen as combining both second and third approaches. On the one hand this case is all about section 3 of UK Compensation Act 2006 which sets forth “special rule governing the attribution of causation” (as Lord Philips puts it). On the other hand, this special rule imposes tort liability for ‘material increase of the risk’. In para. 107 the Judgement directly provides that “[l]iability for mesothelioma falls on anyone who has materially increased the risk of the victim contracting the disease”.

However, it is important to underline that this approach has its limitations; and defining the exact boundaries of its application calls for thorough research. Thus in UK Compensation Act 2006 the special rule is established for mesothelioma cases only. Some scholars argue that the same approach has to be applied
in every case where due to the current state of medical science it is not possible to determine with certainty the actual cause of the injury. However even this much extended the mentioned approach can hardly suit the sweets case. In the case of mesothelioma there are no individualizing evidence at all; they are unobtainable due to the state of medical science. On the contrary in the case of defective sweets there is at least one evidence, namely Consumer’s testimony, but this evidence is unreliable (since if courts accepted this testimony as a reliable evidence then everyone would restore his broken teeth at the expense of the sweets producers). Therefore, sweets case does not fall into the scope of the application of Sienkiewicz principle.

Eventually, fourth and perhaps the most suitable solution is to multiply the plaintiff’s damages by the probability factor (that indicates the probability of damage being actually caused by the defendant). In this case if we assume that Consumer’s damage amounts to 100 € and the probability of this damage being caused by the Producer’s sweets is equal to 60% then the Consumer has to be awarded compensation of 60 €. This approach is upheld by law and economics and has been embodied in the Principles of European Tort Law (hereinafter – PETL). Pursuant to Art. 3:103(1) PETL “[i]n case of multiple activities, where each of them alone would have been sufficient to cause the damage, but it remains uncertain which one in fact caused it, each activity is regarded as a cause to the extent corresponding to the likelihood that it may have caused the victim’s damage”. Since the formulation of this article does not specify the reasons of uncertainty (for instance, that it has to stem from the state of medical science) the realm of its application is not confined to mesothelioma cases or the like. The sweets case, therefore, falls within the scope of Art. 3:103(1) PETL. However, one pragmatic issue remains unsolved, viz where to find reliable ‘epidemiological’ data in relation to causes of broken teeth. Yet the approach enshrined in PETL seems to be the most optimal for the mentioned hypothetical case. The more so since in a modern information-oriented society the amount of available data increases rapidly at an exponential rate. The PETL approach strikes a fair balance between the interests of the parties in tort litigation, provides effective reallocation of costs, guarantees both compensation and deterrence which are the main objectives of tort law.

**BIBLIOGRAPHY**


The article addresses the problem of uncertainty over causation in tort cases. It reveals the interconnection between burden of proof and standard of proof. The author provides a comparative overview of approaches to standard of proof in common law and civil law systems. It is argued that while in common law there are two different standards viz: beyond-reasonable-doubt-standard for criminal cases and balance-of-probabilities standard for civil cases in civil law system there is only one standard applicable both to criminal and civil cases. With comparative analysis in the background the article also reveals the peculiarities of Ukrainian law in the respect of the issue raised. The problem is approached in a pragmatic manner: using a hypothetical case the author
models practical outcomes entailed by each of the approaches being applied to the case. Eventually the conclusion is made that there are four ways of coping with uncertainty over causation: (1) to reverse the burden of proof; (2) to calibrate the standard of proof for certain cases; (3) to recognize the very creation of the abnormal risk as a compensable damage; and (4) to multiply damage plaintiff sustained by the probability factor indicating the likelihood of the damage being actually caused by the defendant.

KEYWORDS

tort law, causation, uncertainty, burden of proof, standard of proof

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prawo deliktów, kauzalność, niepewność, ciężar dowodu, standard dowodowy