General Causation:

A Commentary on Three Recent Cases

Introduction

In virtually every toxic tort case, the defense asserts that the plaintiff must establish general causation as a necessary element of proof of the case. Sometimes, the defense argues that the plaintiff must establish general causation as part of proving a "prima facie" case before trial. Alternatively, the defense claims that the plaintiff lacks evidence of general causation and that such lack of proof entitles the defense to summary judgment.

What is general causation? Must a plaintiff prove general causation to prevail in a toxic tort case?

General causation is an epidemiologic, rather than a legal, concept. "Epidemiology focuses on the question of general causation (i.e., is the agent capable of causing disease?) rather than that of specific causation (i.e., did it cause disease in a particular individual?)." Reference Manual on Scientific Evidence, Federal Judicial Center, 2d ed. at p. 336 (2000).

The defense bar is enamored with general causation, because the concept focuses courts on abstract scientific issues and distracts them from the plight of toxic tort plaintiffs, who suffer from cancer, organ failure, and other horrific disease.

The notion that a toxic tort plaintiff must prove general causation is espoused in most textbooks on toxic tort litigation and has been embraced by the federal courts. The Reference Manual on Scientific Evidence states that "the distinction between general causation and specific causation is widely recognized in court opinions." (Federal Judicial Center, 2d ed. at p. 336 n.6. (2000)).

In recent years, some California trial courts have required plaintiffs in toxic tort cases to prove general causation before trial, either submitting expert declarations or by live expert testimony.
at a pretrial hearing in which the court purports to decide whether general causation has been established.

This article will explain that the concept of general causation is alien to tort law, is not an element of proof in any toxic tort case, and that a tort plaintiff need not offer any proof of general causation to prevail at trial of a toxic tort case. This article will also explain that a pretrial order requiring a plaintiff to prove general causation violates plaintiff's constitutional right to a trial by a jury of his / her peers.

The Law of Actual Cause in California

In most, if not all states, a plaintiff alleging a common law tort must prove that the defendant proximately caused his or her injury. In California, "[o]ne of the concepts included in the term proximate cause is cause in fact, also referred to as actual cause." Mitchell v. Gonzales (1991) 54 Cal.3d 1041, 1049. "California has definitively adopted the substantial factor test of the Restatement Second of Torts for cause-in-fact determinations." Rutherford v. Owens-Illinois, Inc. (1997) 16 Cal.4th 953, 968. "Under that standard, a cause in fact is something that is a substantial factor in bringing about the injury." Id. at 969.

In Rutherford, the California Supreme Court considered application of the substantial factor standard in the context of proof of causation in an occupational cancer case. Recognizing that "plaintiffs cannot be expected to prove the scientifically unknown details of carcinogenesis . . .," the Court held that a plaintiff in such a case may prove cause in fact by showing that the "plaintiff's exposure to a particular product was a substantial factor in causing or bringing about the disease if in reasonable medical probability it was a substantial factor contributing to the plaintiff's risk of cancer." Id. at 977. In Bockrath v. Aldrich Chemical Co. (1999) 21 Cal.4th 71, 79, the Court clarified that this rule applies in "the context of products liability actions" generally.

Import of the Concept of General Causation

Neither the California Supreme Court nor any appellate court in California has recognized general causation as an element of a plaintiff's proof in any tort case.
Why all the fuss? After all, if exposure to a toxin caused the plaintiff to develop a disease, exposure to the toxin is necessarily capable of causing that disease. Otherwise, the exposure couldn't have caused the disease in the plaintiff! Employing this reasoning, the concept of general causation would be both a logical tautology and a legal superfluity. It is neither.

General causation is an epidemiologic term that implies a host of epidemiologic concepts, including temporal relationships, strength of the causal association, dose-response relationships, replication of findings, biological plausibility, alternative explanations, the effect of cessation of exposure, and consistency with other scientific knowledge. Reference Manual, supra, at 375.

When defense counsel urge California courts to require toxic tort plaintiffs to prove general causation, they are actually asking courts to require plaintiffs to prove all these factors - none of which are required in any ordinary tort case and none of which have been required by any California appellate court. In so doing, defense counsel also implicitly urge courts to impose a burden of proof on toxic tort plaintiffs that far exceeds the probability standard. This is so, because epidemiologic studies used to assess general causation are generally only considered if they are statistically significant to a 95% confidence interval.

As though proof of the several epidemiologic factors to a scientific standard were not enough of a burden to impose on the toxic tort plaintiff, defense counsel also urge courts that proof of general causation requires evidence that the causal association has been generally accepted by the scientific/medical community.

It is just such proof that federal courts have required of toxic tort plaintiffs pursuant to the Supreme Court's landmark decision in Daubert v. Merrell Dow Pharmaceuticals, Inc. (1993) 509 U.S. 579. However, in People v. Leahy (1994) 8 Cal.4th 587, the California Supreme Court expressly rejected Daubert in favor of the Frye rule it had adopted in People v. Kelly (1976) 17 Cal.3d 24.

While the Frye rule requires general acceptance in the scientific community, the rule only applies to "black-box" technology, and does not apply to expert medical opinion. People v.

Byrum v. Superior Court

On February 20, 2002, the California Court of Appeal for the Second Appellate District issued an opinion on the issue of general causation in the case of Byrum v. Superior Court (Cal.App. 2 Dist. 2002) 2002 WL 143565 (unpublished). This is the only California case which squarely addresses the issue of proof of general causation, although the opinion does not use these words.

In Byrum, a passenger in a car sustained neck and low back trauma in an automobile accident. Her physicians diagnosed her with fibromyalgia. Plaintiff retained Dr. Wallace, a rheumatologist, who was prepared to testify that the trauma of the accident caused Plaintiff's fibromyalgia. Defendant filed an in limine motion to preclude the plaintiff's expert from testifying on the ground that trauma-induced fibromyalgia is a condition which is not generally accepted in the relevant scientific community under Kelly/Frye.

The trial court held an evidentiary hearing under Cal. Evidence Code § 402 on the admissibility of the opinion of plaintiff's expert rheumatologist. The trial court ruled that the expert's opinion was subject to the Kelly/Frye test and that plaintiff failed to prove that post-traumatic fibromyalgia had gained general acceptance in the medical community. The trial court therefore granted the in limine motion and excluded the expert testimony.

Plaintiff petitioned the Court of Appeal for a writ of mandate, arguing that the expert's opinion was not subject to the Kelly rule and could not be excluded from evidence. The Court of Appeal (Second Appellate District, Division 4) granted the writ, writing:

The peremptory writ is granted on the ground it is a clear abuse of discretion to apply the admissibility test of People v. Kelly (1976) 17 Cal.3d 24, 31, to the expert opinion testimony of Dr. Wallace concerning causation of fibromyalgia.
It is undisputed that Dr. Wallace based his expert opinion testimony exclusively upon his physical examination of plaintiff using techniques that are generally accepted in the relevant medical community (applying pressure to areas of the body to detect "tender points"), his own extensive clinical experience, and research papers in peer-reviewed medical journals expressing the view that trauma can cause fibromyalgia. He did not rely upon any "new scientific technique, device or procedure" that has not gained general acceptance in the relevant scientific or medical community.

Real party in interest's primary contention is that an expert medical opinion advancing a theory of causation ("explaining the process by which an event causes a medical condition"), is subject to the reliability/ admissibility test of People v. Kelly, (1976) 17 Cal.3d 24, 31, because such an opinion is itself a "novel scientific theory or method" that "creates a misleading aura of certainty" by purporting to relay to the trier of fact a "definitive truth" derived from an unproven scientific technique or procedure. Real party asserts that the causation theory purports to relay a "definitive scientific truth" simply "by the very definition of the word 'cause.'" Real party also asserts that Dr. Wallace's theory of causation is subject to the Kelly test because its "faulty methodology" rests upon "speculative [physiological] mechanisms" and a "misinterpretation of medical science literature." (Petition Exhibit "5," p. 31' Return to Petition, pp. 15-18.)

Real party's position is directly contrary to California case law.

Under California law, the criterion for application of the "Kelly" rule is that the expert testimony is based, at least in some part, on a new scientific technique, device, procedure or method that is not generally accepted in the relevant scientific community. The criterion is not that the opinion or underlying theory asserted by the expert is itself not generally accepted in the relevant scientific community or is faulty. The rationale underlying the Kelly rule is that juries must be protected from evidence in the form of a new and unproven scientific device, technique or method which "appears in both name and description to provide some definitive truth which the expert need only accurately recognize and relay to the jury. The most obvious examples are machines or procedures which analyze physical data. Lay minds might easily, but erroneously, assume that such procedures are objective and infallible." "Absent some special feature which effectively blindsides the jury, expert opinion testimony is not subject to Kelly-
People v. Ward, supra, 71 Cal.App.4th at 373, concisely summarizes the point: "California distinguishes between expert medical opinion and scientific evidence; the former is not subject to the special admissibility rule of Kelly-Frye. (People v. McDonald (1984) 37 Cal.3d 351, 372-373.) Kelly-Frye applies to cases involving novel devices or processes, not to expert medical testimony, such as a psychiatrist's prediction of future dangerousness or a diagnosis of mental illness. (Citation.)."

The extent to which expert medical opinion testimony is exempted from the Kelly rule is illustrated by our Supreme Court's comment in People v. McDonald, supra, 37 Cal.3d 351, at 373-373: "We have never applied the Kelly-Frye rule to expert medical testimony, even when the witness is a psychiatrist and the subject matter is as esoteric as the reconstitution of a past state of mind or the prediction of future dangerousness, or even the diagnosis of an unusual form of mental illness not listed in the diagnostic manual of the American Psychiatric Association (Citation)."

Wilson, supra, and Bui, supra, specifically hold that medical theories of causation are not subject to the "Kelly " rule when they are based entirely upon generally accepted diagnostic methods and tests, including statistical studies that are not definitive. Bui, at 1196, reiterates the established principle that disagreement by an opposing party's expert with the conclusions a medical expert witness draws from accepted methods of scientific research "does not make [the challenged expert's] methodology a new scientific technique." Bui and other cases point out that opposing parties are free to present contrary expert testimony to refute a medical opinion because juries do not view the subjective thought processes of an expert as having the "aura of infallibility" they tend to attribute to scientific devices, techniques or procedures. (Bui, supra, at 1195-1196.)

Under these principles, the medical opinion drawn by Dr. Wallace concerning causation of fibromyalgia clearly does not meet the California criterion for application of the Kelly rule.
Real party's persistent reliance upon the federal "Daubert" rule, which would apply a preliminary admissibility test to a medical opinion concerning causation, is wholly unavailing. California has explicitly rejected the broader federal rule and reaffirmed its adherence to the narrower Kelly rule. (People v. Leahy (1994) 587, at 604-605.)

Byrum, supra, 2002 WL 24356.

Thus, the Byrum court not only rejected the notion that a plaintiff must establish general causation at a preliminary hearing, but expressly rejected application of the admissibility test of Daubert to general causation determinations in California courts. However, since Byrum is an unpublished opinion, pursuant to California Rule of Court 977(a), it is not citable as precedent.

Donaldson v. Central Illinois Public Service Co.

Two days after the California Court of Appeal rendered its decision in the Byrum case, on February 22, 2002, the Illinois Supreme Court issued a landmark decision on the issue of general causation in Donaldson v. Central Illinois Public Service Company (Ill. 2002) ___ N.E.2d ___, 2002 WL 254042.

Donaldson was a toxic tort case in which plaintiffs alleged that environmental exposure to coal tar from a nearby coal gasification plant caused their children to develop neuroblastoma, a cancer of the peripheral nervous system. Neuroblastoma is so rare that epidemiologic studies have not been conducted to determine its cause. After denying defendants' motions for summary judgment based on general causation and refusing to exclude Plaintiffs' experts, a jury verdict of $3.2 million was rendered for plaintiffs. The defendants appealed, arguing that the judgment had to be reversed because of lack of proof of general causation, i.e., that exposure to coal tar can even cause neuroblastoma.

The Supreme Court of Illinois affirmed, writing as follows:
We disagree with defendant's characterization of Illinois law on causation. First, Illinois law does not define causation in terms of "generic" or "specific" causation. Rather, our case law clearly states that in negligence actions, the plaintiff must present evidence of proximate causation, which includes both "cause in fact" and "legal cause." [citations] A plaintiff may show "cause in fact" under the substantial factor test, showing that the defendant's conduct was a material element and substantial factor in bringing about the alleged injury. . . .

Thus, the Illinois Supreme Court squarely rejected the notion that a toxic tort plaintiff must prove general causation as part of a plaintiff’s required proof of causation.

The court also rejected the notion that state court judges have a role as "gatekeepers" of expert opinion testimony:

Further, despite CIPS's contention, Frye does not make the trial judge a "gatekeeper" of all expert testimony. The trial judge's role is more limited. The trial judge applies the Frye test only if the scientific principle, technique or test offered by the expert to support his or her conclusion is "new" or "novel."

The Court further held that although plaintiffs’ experts did not base their opinions on epidemiologic studies, their opinions did not involve a novel scientific technique, because they utilized extrapolation, a generally accepted scientific method.

Finally, the Court expressly rejected a "Frye-plus-reliability" standard based on Daubert criteria:

Today, we clarify that this is not the standard in Illinois. The trial court is not required to conduct a two-part inquiry into both the reliability of the methodology and its general acceptance. The determination of the reliability of an expert's methodology is naturally subsumed by the inquiry into its general acceptance in the scientific community. Simply put, a principle or technique is not generally accepted in the scientific community if it is by nature unreliable. Additionally, the Frye-plus-reliability test impermissibly examines the data from which the opinion flows, while the technique remains generally accepted. Questions concerning
underlying data, and an expert's application of generally accepted techniques, go to the weight of the evidence, rather than its admissibility. Trial judges decide the general acceptance of the technique; a jury decides whether it will accept the expert's conclusion which is based on that technique.

Notably, in support of its decision, the Illinois Supreme Court cited the California Supreme Court's opinion in People v. Stoll (1989) 49 Cal.3d 1136, for the proposition that "a jury may find that machines are objective and infallible, and may assume testimony based upon procedures which analyze physical data provides a definitive truth." The Court noted that "[b]y contrast, extrapolation by nature admits its fallibility – the lack of specific support to establish the existence of a known cause and effect relationship" and "[t]he jury is left to judge the veracity of the expert's conclusion."

Logerquist v. McVey


In Logerquist, a patient brought a medical malpractice action against pediatrician and his professional corporation based on repressed memories of childhood sexual abuse. The trial court entered an order precluding expert testimony of the patient's allegedly repressed memory. The patient sought review by special action. The Court of Appeals declined to hear the matter, and the patient petitioned the Arizona Supreme Court for review.

The Arizona Supreme Court held that the Frye standard for determining admissibility of expert testimony does not apply to observation- and experience-based expert testimony that the patient had repressed memories of abuse, and declined to adopt Daubert for determining admissibility of scientific evidence. The Court wrote:

Our constitution preserves the "right to have the jury pass upon questions of fact by determining the credibility of witnesses and the weight of conflicting evidence." Burton v. Valentine, 60 Ariz. 518, 529, 141 P.2d 847, 851 (1943). The framers' intent does not
contemplate giving judges the power to determine reliability and credibility of a qualified expert as a prerequisite to submission of the expert's conclusions to a jury for its determination of the weight to the testimony.

Id., 1 P.3d at 130; 196 Ariz. at 487.

The Court reasoned:

It would be strange that a judge forbidden to comment on the reliability or credibility of testimony would be empowered to preclude the jury from hearing the testimony at all because the judge believes it to be unreliable or not worthy of belief. Reduction or obliteration of the jury function may be seen by some as the ultimate tort reform, but it is one prohibited by our organic law.

Id., 1 P.3d at 130; 196 Ariz. at 487.

The Court concluded:

Questions about the accuracy and reliability of a witness' factual basis, data, and methods go to the weight and credibility of the witness' testimony and are questions of fact. The right to jury trial does not turn on the judge's preliminary assessment of testimonial reliability. It is the jury's function to determine accuracy, weight, or credibility.

Id., 1 P.3d at 130; 196 Ariz. at 487.

Finally, the Logerquist court expressly rejected the Daubert trilogy:
The Daubert/Joiner/Kumho trilogy of cases ... puts the judge in the position of passing on the weight or credibility of the expert's testimony, something we believe crosses the line between the legal task of ruling on the foundation and relevance of evidence and the jury's function of whom to believe and why, whose testimony to accept, and on what basis.

The Court therefore vacated a pretrial ruling in which, after a lengthy hearing, the trial judge determined that the "theories advanced by Plaintiff's experts are not generally accepted in the relevant scientific community," and directed the trial court to allow the jury to hear the testimony of the plaintiff's experts and to determine the credibility and weight to which it was entitled.


Conclusion

The recent decisions of the California Court of Appeal in Byrum, the Illinois Supreme Court in Donaldson, and the Arizona Supreme Court in Logerquist show that general causation has no place in state tort law, that the Frye rule does not apply to the issue of general causation, and that proof of causation in toxic tort cases entails expert medical opinion testimony, which is not subject to exclusion under the Frye rule. The cases collectively establish that the issue of causation in toxic tort cases involves factual determinations within the purview of the jury as factfinder rather than within the purview of state court judges, who, unlike their federal counterparts, have no authority to function as "gatekeepers" in preventing juries from hearing expert testimony.