

S15G1278. SCAPA DRYER FABRICS, INC. v. KNIGHT et al.

BLACKWELL, Justice.

Scapa Dryer Fabrics, Inc. is a textile manufacturer, and in the late 1960s and early 1970s, it produced dryer felts at a manufacturing facility in Waycross. Some of the pipes and boilers in that facility were insulated with material containing asbestos, and Scapa used yarn containing asbestos in some of its manufacturing processes. Between 1967 and 1973, Roy Knight worked on multiple occasions at the Waycross facility as an independent contractor. Almost forty years later, Knight was diagnosed with mesothelioma, a cancer most commonly associated with the inhalation or ingestion of asbestos fibers. After his mesothelioma was diagnosed, Knight and his wife sued Scapa, claiming that Scapa negligently exposed him to asbestos at the Waycross facility and caused his mesothelioma.<sup>1</sup> The case was tried by a Ware County jury, which returned

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<sup>1</sup> Knight was employed as a sheet-metal worker, and between 1967 and 1973, he worked on a number of projects at the Waycross facility. It is unclear, however, how much time in all Knight spent at the facility. Likewise, it is unclear — and strongly disputed in this case — to what extent Knight actually was exposed to asbestos at the facility. When Scapa used yarn containing asbestos in its manufacturing process, asbestos fibers were released into the air, and the evidence shows that Knight sometimes worked at the facility while the manufacturing process was underway. The evidence also shows that Knight worked in

a verdict against Scapa and awarded more than \$4 million in damages to the Knights.<sup>2</sup> The trial court entered a judgment upon that verdict, and Scapa appealed.

Among other things, Scapa argued on appeal that the trial court erred when it admitted the expert testimony of Dr. Jerrold Abraham, a pathologist. In his testimony, Dr. Abraham opined that, if Knight actually was exposed to asbestos while working at the Waycross facility, that exposure was a cause of his mesothelioma, regardless of the precise extent of the exposure. Dr. Abraham

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ventilation ducts at the facility in which dust had collected, and on one occasion, he cut into pipe insulation and was exposed to dust from the insulation. Notwithstanding this evidence, Scapa disputes that Knight actually was exposed to any meaningful level of asbestos at its Waycross facility, and Scapa offered expert testimony to support its position on the extent of exposure.

<sup>2</sup> Knight and his wife also sued Union Carbide Corporation, alleging that Union Carbide negligently contributed to his mesothelioma by its sale of asbestos to Georgia Pacific, LLC for use in the manufacture of a joint compound to which Knight was exposed when drywall was installed at his residence in the mid-1970s. The claims against Scapa and Union Carbide were tried together by a single jury. As with Scapa, the jury returned a verdict against Union Carbide, and the jury also found fault on the part of nonparty Georgia Pacific. The jury assessed 40 percent of the combined fault for the mesothelioma to Scapa, 40 percent to Union Carbide, and 20 percent to Georgia Pacific, and it apportioned the damages consistent with this allocation of fault, awarding more than \$4 million in damages as against Scapa. See OCGA § 51-12-33. See also Zaldivar v. Prickett, 297 Ga. 589, 591-600 (1) (774 SE2d 688) (2015). The jury considered evidence that 29 other nonparties also had exposed Knight to asbestos, but the jury declined to attribute any fault to these other nonparties. After the verdict was returned, Union Carbide settled with the Knights, and Union Carbide is not, therefore, a party to this appeal.

explained that a small number of respirable asbestos fibers are naturally present in the air, but exposure to this background asbestos is not known to cause mesothelioma. When someone is exposed to respirable asbestos in excess of the background, however, his cumulative exposure may build to a point that it exceeds the capacity of the lungs to absorb the exposure, and at that point, the cumulative exposure may lead to mesothelioma. According to Dr. Abraham, the precise point at which cumulative exposure is sufficient to cause any particular person to develop mesothelioma is not scientifically knowable, and for that reason, when a person actually has mesothelioma, it can only be attributed to his cumulative exposure as a whole. Because each and every exposure to respirable asbestos in excess of the background contributes to the cumulative exposure, Dr. Abraham reasoned, each exposure in excess of the background is a contributing cause of the resulting mesothelioma, regardless of the extent of each exposure.

Objecting to the testimony of Dr. Abraham, Scapa argued at trial and on appeal that his theory of cumulative exposure is not reliable in a scientific sense, the theory does not comport in any event with the legal requirements for causation in Georgia, and an expert opinion about causation that is derived from that theory is inadmissible. The trial court rejected these arguments, and in

Scapa Dryer Fabrics, Inc. v. Knight, 332 Ga. App. 82, 85-89 (2) (770 SE2d 334) (2015), a divided seven-judge panel of the Court of Appeals rejected them and affirmed the judgment of the trial court.<sup>3</sup> We issued a writ of certiorari to review the decision of the Court of Appeals only with respect to the admission of the testimony of Dr. Abraham, and we now reverse.

To begin, we look to former OCGA § 24-9-67.1 (b),<sup>4</sup> which sets forth the usual standard for the admissibility of expert opinion testimony in civil cases:

If scientific, technical, or other specialized knowledge will assist the trier of fact in any cause of action to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education may testify thereto in the form of an opinion or otherwise, if:

- (1) The testimony is based upon sufficient facts or data which are or will be admitted into evidence at the hearing or trial;

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<sup>3</sup> Judge McFadden authored the principal opinion for the Court of Appeals, addressing the admissibility of the testimony of Dr. Abraham in Division 2. Presiding Judge Barnes joined the principal opinion in full. Then-Presiding Judge Doyle, Judge Boggs, and Judge Ray concurred in the judgment, but they withheld their concurrence from Division 2 and only joined the other divisions of the opinion. Presiding Judge Andrews wrote a dissenting opinion, which was joined by Judge Branch.

<sup>4</sup> This case was tried in 2010, and for that reason, our old Evidence Code – of which former OCGA § 24-9-67.1 (b) is a part – applies. See Olds v. State, 299 Ga. 65, 69 n.5 (\_\_\_ SE2d \_\_\_) (2016) (“The new Evidence Code applies in cases tried on or after January 1, 2013.” (Citation omitted)). We note, however, that the provisions of former OCGA § 24-9-67.1 (b) were carried forward into the new Evidence Code and now can be found in OCGA § 24-7-702 (b).

(2) The testimony is the product of reliable principles and methods; and

(3) The witness has applied the principles and methods reliably to the facts of the case.

Like most questions of admissibility, whether expert testimony ought to be admitted under former OCGA § 24-9-67.1 (b) is a question committed to the sound discretion of the trial court. Toyo Tire North America Mfg. v. Davis, 299 Ga. 155, 158 (2) (787 SE2d 171) (2016). But when a trial court exercises that discretion, former OCGA § 24-9-67.1 (b) “imposes a special obligation upon [the] trial judge.” Kumho Tire Co. v. Carmichael, 526 U. S. 137, 147 (II) (A) (119 SCt 1167, 143 LE2d 238) (1999).<sup>5</sup> As we have explained before, “[t]he whole premise of [former OCGA § 24-9-67.1] is that a trial court must act as a ‘gatekeeper’ to ensure the relevance and reliability of expert testimony.” Dubois v. Brantley, 297 Ga. 575, 585 (2) (775 SE2d 512) (2015) (citation omitted). See also Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U. S. 579, 597 (IV) (113 SCt 2786, 125 LE2d 469) (1993).

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<sup>5</sup> For the most part, the standard set forth in former OCGA § 24-9-67.1 (b) was borrowed from Federal Rule of Evidence 702, see Dubois v. Brantley, 297 Ga. 575, 580 (2) (775 SE2d 512) (2015), and so, when we consider the meaning of the Georgia standard, we commonly look for guidance in the decisions of the federal appellate courts construing and applying Rule 702. See Mason v. Home Depot U.S.A., Inc., 283 Ga. 271, 279 (5) (658 SE2d 603) (2008).

Generally speaking, a trial court must assess three aspects of proposed expert testimony — the qualifications of the expert, the reliability of the testimony, and the relevance of the testimony — to discharge its responsibilities as a gatekeeper under former OCGA § 24-9-67.1 (b). See HNTB Ga., Inc. v. Hamilton-King, 287 Ga. 641, 642 (1) (697 SE2d 770) (2010) (“In determining the admissibility of expert testimony, the trial court acts as a gatekeeper, assessing both the witness’[s] qualifications to testify in a particular area of expertise and the relevancy and reliability of the proffered testimony.” (Citations omitted)). See also Seamon v. Remington Arms Co., 813 F3d 983, 988 (III) (A) (11<sup>th</sup> Cir. 2016); City of Tuscaloosa v. Harcros Chemicals, Inc., 158 F3d 548, 562 (11<sup>th</sup> Cir. 1998). As for qualifications, the trial court must examine the credentials of the expert to ascertain the extent to which he is “qualified to testify competently regarding the matters he intends to address,” Seamon, 813 F3d at 988 (III) (A) (citation omitted), whether by “knowledge, skill, experience, training, or education.” Former OCGA § 24-9-67.1 (b). As for reliability, the trial court must consider whether “the methodology by which the expert reaches his conclusions is sufficiently reliable.” Seamon, 813 F3d at 988 (III) (A) (citation omitted). To this end, the trial court must ask whether the

conclusions of the expert “[are] based upon sufficient facts or data,” former OCGA § 24-9-67.1 (b) (1), whether the expert drew those conclusions by use of “reliable principles and methods,” former OCGA § 24-9-67.1 (b) (2), and whether the expert “applied [those] principles and methods reliably to the facts of the case,” former OCGA § 24-9-67.1 (b) (3). See also Daubert, 509 U. S. at 592-593 (II) (C) (trial court must consider “whether the reasoning or methodology underlying the testimony is scientifically valid and . . . whether that reasoning or methodology properly can be applied to the facts in issue”). And as for relevance, the trial court must consider the “fit” between the expert testimony and the issues in dispute. Seamon, 813 F3d at 988 (III) (A). To properly be admissible, expert testimony must “assist the trier of fact . . . to understand the evidence or to determine a fact in issue,” former OCGA § 24-9-67.1 (b), and expert testimony is helpful to the trier of fact only to the extent that “the testimony is relevant to the task at hand and logically advances a material aspect of [the] case.” Boca Raton Community Hosp. v. Tenet Health Care Corp., 582 F3d 1227, 1232 (II) (11<sup>th</sup> Cir. 2009) (citation and punctuation omitted).

In this case, Scapa does not dispute that Dr. Abraham has adequate credentials to qualify as an expert. Scapa vigorously disputes, however, the

reliability of his testimony, asserting that the cumulative exposure theory by which Dr. Abraham developed his opinions on causation is not scientifically valid and is, to the contrary, “junk science.” Scapa also disputes the relevance of his testimony, arguing that it simply does not “fit” the pertinent causation inquiry under Georgia law. In the circumstances of this case, we agree that the critical opinion conveyed by Dr. Abraham in his testimony — that any exposure to asbestos at the Waycross facility was a cause of Knight’s mesothelioma, regardless of the extent of the exposure — does not “fit” the legal standard for causation, and for that reason, the admission of his testimony under former OCGA § 24-9-67.1 (b) was not helpful to the jury and amounted to an abuse of discretion.<sup>6</sup>

To prove causation as against Scapa under Georgia law, Knight and his wife had to show that exposure to asbestos at the Waycross facility was “a contributing factor in bringing about [his mesothelioma].” John Crane, Inc. v. Jones, 278 Ga. 747, 748 (604 SE2d 822) (2004). See also DaimlerChrysler Corp. v. Ferrante, 281 Ga. 273, 274 (1) (637 SE2d 659) (2006); Gooch v.

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<sup>6</sup> Because we resolve this case upon “fit,” we do not decide whether Dr. Abraham’s cumulative exposure theory is scientifically valid.



Georgia Marble Co., 151 Ga. 462, 464 (107 SE 47) (1921). We previously have rejected the notion that the “contribution to the resulting injury [must] be ‘substantial’” to show legal causation. John Crane, Inc., 278 Ga. at 748. At the same time, however, we cautioned that a “de minimis” contribution is not enough. See *id.* at 750 (“[T]he jury charge [on ‘contributing factor’] would not have misled the jury into believing that it could award damages for a de minimus exposure to asbestos.” (Citation omitted)). Put another way, although Knight and his wife did not have to prove that exposure to asbestos at the Waycross facility made a *substantial* contribution to his mesothelioma, they did have to show that it made a *meaningful* contribution. Just as we explained in John Crane, Inc., a de minimis contribution to an injury is not sufficient to establish legal causation under Georgia law.<sup>7</sup>

When the jury in this case considered legal causation, it had to determine not only whether exposure to asbestos at the Waycross facility contributed in some way to Knight developing mesothelioma, but also whether the extent of that contribution was something more than de minimis. Although Knight and his

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<sup>7</sup> We note that Knight and his wife do not ask this Court to overrule or reconsider our precedent on causation.

wife may well have presented evidence of more than a de minimis exposure at the Waycross facility, Scapa presented evidence to the contrary. Whether Scapa exposed Knight to *any* asbestos beyond background — and if so, whether that exposure was anything more than de minimis — was seriously disputed at trial. It was, of course, the prerogative and responsibility of the jury to resolve these disputed questions of fact, and for all we know, perhaps the jury found that Scapa exposed Knight to substantial asbestos. But by his testimony, Dr. Abraham essentially told the jury that it was unnecessary to resolve the extent of exposure at the Waycross facility — if the jury determined that Knight was exposed at the facility to *any* asbestos beyond background, that exposure contributed to his cumulative exposure, and according to Dr. Abraham, it was, therefore, a contributing cause of the mesothelioma.<sup>8</sup> Such testimony does not “fit” the issue that the jury was charged with deciding, and it could not have been helpful to the jury.

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<sup>8</sup> The principal opinion of the Court of Appeals below characterized this case as a “substantial exposure” case. See Scapa Dryer Fabrics, 332 Ga. App. at 87 (2). For our immediate purposes, we accept that the jury might properly have found something more than a de minimis exposure at the Waycross facility. But whether Knight was exposed at all by Scapa, and if so, to what extent, was highly disputed at trial. In light of Dr. Abraham’s testimony, the fact that the jury ultimately returned a verdict against Scapa offers no assurance that the jury actually found anything more than a de minimis exposure.

That is not to say that expert testimony premised upon a cumulative exposure theory could never be relevant to causation under Georgia law. We suppose, for instance, that if an expert coupled his reliance on the cumulative exposure theory with reliable data sufficient to show that the exposure in question were more than de minimis — and if the expert qualified his ultimate opinion as to causation, conditioning it upon there having been more than a de minimis exposure — the opinion then might “fit” the pertinent causation inquiry, notwithstanding that the extent of exposure is disputed. In that instance, the jury would have to resolve the extent of the exposure, and if the jury accepted that the exposure was as significant as the data of the expert suggested, it then could accept his opinion as to causation. But in this case, Dr. Abraham did not undertake to estimate the extent of exposure in any meaningful way, and he did not qualify his opinion on causation by limiting it to such estimate of exposure.

Courts throughout the country have recognized the importance of such a qualification for the admissibility of expert testimony based on a theory of cumulative exposure, admitting such testimony when it is based on reliable data sufficient to show the requisite exposure, and rejecting such testimony when it

is not.<sup>9</sup> See, e.g., Schwartz v. Honeywell Intl., Inc., \_\_\_ NE3d \_\_\_, \_\_\_ (2016 Ohio App. LEXIS 2103) (2016) (noting that courts “have distinguished testimony suggesting a de minimis exposure to asbestos could cause mesothelioma from testimony that each significant exposure to asbestos could be a cause”); Robertson v. Doug Ashy Bldg. Materials, Inc., 168 S3d 556, 578-579 (La. App. 2014) (testimony admissible where expert “did a qualitative assessment of Mr. Robertson’s exposures” and limited his opinion on causation to exposures of significance); Quirin v. Lorillard Tobacco Co., 23 FSupp.3d 914, 920 (N.D. Ill. 2014) (“There is a difference, moreover, between pointing to a minor exposure to asbestos and claiming causation in a conclusory fashion and identifying, through use of expert testimony, a significant and sustained exposure in the plaintiff’s history.”). See also Yates v. Ford Motor Co., 113 FSupp.3d 841, 862 (E.D.N.C. 2015) (testimony inadmissible where it was not tied to quantitative analysis of actual exposure); Krik v. Owens-Illinois, Inc., 2015 U.S. Dist. LEXIS 112163 \*3 (Case No. 10-CV-07435) (N.D. Ill. 2015)

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<sup>9</sup> For a plaintiff to show that an exposure was more than de minimis, we do not mean to suggest that it is essential for the plaintiff’s expert to estimate the extent of the exposure in precise quantitative terms. Such an estimate may not be possible in many cases, and our Court of Appeals has held that it is not absolutely required. See Fouch v. Bicknell Supply Co., 326 Ga. App. 863, 868-869 (1) (756 SE2d 682) (2014).

(testimony inadmissible where it “was not tied to the specific quantum of exposure attributable to the defendants”). Indeed, in one case, a court admitted the causation testimony of Dr. Abraham himself, in large part because Dr. Abraham had based his opinion not only upon a theory of any exposure or cumulative exposure, but also upon a review of the evidence of the extent of exposure, as well as a review of studies showing that such exposures present an increased risk of developing mesothelioma. See Anderson v. Ford Motor Co., 2014 U.S. Dist. LEXIS 26337 (Case No. 2:06-CV-741-TS) (D. Utah, 2014). Even though Dr. Abraham in this case may have spoken of the extent to which Knight could have been exposed to asbestos by Scapa (as well as studies showing increased risk at certain exposure levels), Dr. Abraham did not cast his ultimate opinion on causation (as he presented it to the jury) in those terms. Rather, Dr. Abraham invited the jury to find causation if there was any exposure by Scapa, even if it were only de minimis. Consistent with his opinion that *any* contribution to cumulative exposure is a cause of mesothelioma, Dr. Abraham told the jury that a causal connection would be lacking only if “there was no asbestos exposure” attributable to Scapa. Dr. Abraham testified that “one fiber [of asbestos] above ambient levels” would be causative for someone who had

mesothelioma. He twice said in his testimony that he did not need to determine the extent of Knight's exposure, but only needed to know that the exposure was more than "zero." And he testified that, even if someone "gets the disease from a trivial exposure, it's still asbestos related."

Because Dr. Abraham failed to adequately qualify his opinion on causation and condition it upon a reliable estimate of actual exposure, his opinions are not saved by his additional testimony about the hypothetical extent to which Knight might have been exposed to asbestos at the Waycross facility. For all we know, the jury could have disregarded altogether those hypothetical statements about the extent of exposure and still attributed cause to a de minimis exposure by Scapa simply because the jury believed Dr. Abraham when he said that *any* exposure beyond background would be a contributing cause. As Presiding Judge Andrews noted in his dissent below, "[u]nder Dr. Abraham's methodology, any exposure to asbestos, no matter how small, can be characterized as a 'substantial cause' because, in his opinion, all exposures contribute to cause mesothelioma." Scapa Dryer Fabrics, 332 Ga. App. at 102 (Andrews, P. J., dissenting).

In the trial court, the Knights bore the burden to establish not only that Dr. Abraham was qualified and that his testimony was reliable, but also that his testimony would be helpful to the jury. See United States v. Frazier, 387 F3d 1244, 1260 (III) (A) (11th Cir. 2004) (burden is on the party seeking to introduce expert testimony to “establish[ ] qualification, reliability, and helpfulness”). His ultimate opinion as to causation, however, was not limited to any meaningful estimate of exposure to asbestos at the Waycross facility (whether qualitative or quantitative), and it instead invited the jury to find that causation was established by any exposure at all. In that respect, the testimony did not “fit” the pertinent causation inquiry under Georgia law, and it should have been excluded by the trial court, acting as gatekeeper, because it could only serve to confuse the jury on the issue of causation. And given that Dr. Abraham’s opinion “went to the heart” of the dispute about the extent of exposure and causation, “the erroneous admission of the opinion requires that we reverse the Court of Appeals’ affirmance of the trial court’s judgment.” Johnson v. Knebel, 267 Ga. 853, 859 (4) (485 SE2d 451) (1997).

Judgment reversed. All the Justices concur, except Benham and Hunstein, JJ., who concur in judgment only.

Decided July 5, 2016.

Certiorari to the Court of Appeals of Georgia — 332 Ga. App. 82.

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