

REVISED, JANUARY 11, 2001  
UNITED STATES COURT OF APPEALS  
FOR THE FIFTH CIRCUIT

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No. 99-41038

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RODGER NELSON SMITH, JR.,

Plaintiff-Appellee,

v.

LOUISVILLE LADDER CORP.,

Defendant-Appellant.

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Appeal from the United States District Court  
For the Eastern District of Texas

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January 11, 2001

Before DAVIS, SMITH and DENNIS Circuit Judges.

DAVIS, Circuit Judge:

This is an appeal from a judgment entered on a jury verdict for the plaintiff, Rodger Nelson Smith ("Smith"), in a products liability action against Louisville Ladder Corp. ("Louisville"). Following a four day trial, the jury found in favor of Smith, and, after taking Smith's 15% contributory negligence into account, awarded Smith \$1,487,500. We conclude that the record evidence does not support any of Smith's theories of recovery. We therefore

reverse and render judgment for Louisville.

I.

Rodger Smith worked as a technician for Longview Cable Company ("Longview"), which provided cable television service in the Longview, Texas area. At the time of his accident in April 1995, Smith had been employed by Longview for approximately one and one-half years. Longview purchased the extension ladder and hook assembly in use at the time of Smith's accident from Louisville.

On the day of Smith's injury, he was assigned a routine repair job that required him to rest the ladder against a cable strand located some twenty feet off the ground. Smith placed the cable line inside the U-shaped hooks that extended from the top of the ladder and rested the ladder against the cable. The base of the ladder was on the ground approximately five feet from a utility pole to which the overhead cable was attached. Because of its weight, the cable sloped down slightly as it moved from the pole.

Smith climbed the ladder without securing the ladder to the pole or any other stationary object. Smith's plan was to secure himself to the ladder with his safety belt when he reached the top of the ladder and then use a hand line to attach the ladder to the utility pole. After Smith climbed to the top of the ladder, he reached for his safety belt and his weight shifted, causing the ladder to slide to his left down the natural slope of the cable. The ladder slid sideways for some distance with Smith hanging onto

the ladder. When the ladder reached a position at or near the low point of the line between the two utility poles to which it was attached, one of the hooks came off the line, and the ladder twisted and came to an abrupt halt. Unable to maintain his grip on the ladder, Smith fell to the ground and was seriously injured.

Lateral slides of ladders along cables were well recognized risks in the telecommunications industry, and Smith, himself, had experienced several of these slides during his employment with Longview. However, in the earlier slides Smith had attached his safety belt to the ladder before the slide began and because he did not fall from the ladder he suffered no injury.

Smith's product liability suit against Louisville sought recovery on three theories: defective design, failure to warn, and breach of implied warranty of merchantability. Following trial, the jury found in favor of Smith on all three theories and after taking Smith's 15% contributory negligence into account, awarded Smith \$1,487,500. The district court entered judgment on the verdict and denied Smith's post-judgment motions. This appeal followed.<sup>1</sup>

## II

### A. Design Defect

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<sup>1</sup>We disagree with the dissent that Louisville Ladder is raising a "new ground" for JMOL. Louisville Ladder sought JMOL on the ground that plaintiff's evidence was insufficient to establish a "safer alternative design". This preserved the issue for appeal.

Smith focused most of his time and attention at trial on his theory that the Louisville extension ladder with hook assembly was defective because of the hook's ability to come off the cable during a slide. Smith's expert, Dr. Packman, testified that when the hook disengaged from the cable near the end of Smith's slide, the ladder to which Smith was clinging twisted more violently than it would had the hook remained attached to the cable and he concluded that this additional twist contributed to Smith's fall. Packman introduced the concept of a simple latching device that, when engaged, would close the opening in the hook, encircle the cable and prevent the hook from disengaging from the strand. Under Dr. Packman's concept, the latch remains disengaged until the hook is placed over the cable and the ladder is resting on the cable. The operator, from his position on the ground, would then remotely activate a spring loaded latch by pulling a line running from the latch to the bottom of the ladder. Once the latch was engaged, the hook would no longer be open and in the event of a slide, the hook could not disengage from the cable.

Louisville Ladder argues that Smith did not establish that the hook with Dr. Packman's latch was a "safer alternative design" within the meaning of the Texas statute. To establish a design defect, Section 82.005 of the Texas Civil Practice and Remedies Code requires a claimant "to prove by a preponderance of the evidence that: (1) there was a safer alternative design; and (2)

the defect was a producing cause of the personal injury property damage or death for which the claimant seeks recovery." Subsection

(b) states:

(b) In this section, "safer alternative design" means a product design other than the one actually used that in reasonable probability:

(1) would have prevented or significantly reduced the risk of the claimant's personal injury, property damage, or death without substantially impairing the product's utility; and

(2) was economically and technologically feasible at the time the product left the control of the manufacturer or seller by the application of existing or reasonably achievable scientific knowledge.

We found only one Texas case discussing the proof necessary to establish a safer alternative design under this statute. In General Motors Corp. v. Sanchez, 997 S.W. 2d 584 (Tex. 1999), the plaintiff's expert testified that his alternative design of the General Motors transmission would prevent internal forces in the transmission from moving the gear selector toward "reverse" rather than "park" when the driver inadvertently leaves the lever in a position between "reverse" and "park." According to plaintiff's expert, his proposed design change would eliminate this spontaneous movement 99% of the time. The court held that this testimony was sufficient to allow the jury to conclude that plaintiff had established a safer alternative design. Id. at 592.

In our case, Smith completely relies on Dr. Packman's evidence

and testimony to establish a safer alternate design. Packman testified that his spring loaded latch, by preventing the hook from disengaging from the cable, would make the jolt at the end of the slide less violent, and, therefore, the worker would have a better chance of hanging onto the ladder. He conducted videotaped experiments for the purpose of establishing this fact. In the first experiment, he placed a 200-pound weight on a ladder with hooks like those found on the Louisville Ladder and then precipitated a slide to demonstrate the jerk that would occur when one of the hooks disengaged from the strand. For the second experiment, Dr. Packman videotaped a slide involving hooks that encircled the cable.<sup>2</sup> This experiment demonstrated a less violent jerk at the end of the slide.

The only conclusion Dr. Packman was able to reach was that his alternative design would result in a less violent jerk on the ladder at the end of the slide. Unlike the expert who testified in General Motors, Dr. Packman was unable to quantify this reduction in force and was unable to say that Smith or another worker could stay on the ladder in a slide where the hook was prevented from disengaging from the cable. The most Dr. Packman could say was

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<sup>2</sup> As stated below, Dr. Packman never produced his proposed improvement--the spring loaded latching device. For this experiment he simply drilled holes in the hook, ran a bolt through the holes and closed the open end of the hook so that it would not disengage from the cable.

that his design alteration would diminish the possibility of the worker's falling off because there was some reduction in the jerk.

Furthermore, Dr. Packman's concept of the latching device to close the open end of the hook around the cable was a preliminary concept. At the time of trial he admitted that he had considered several possible ways a man on the ground (or some distance up the ladder) could operate the latch mechanism but had not settled on any particular method. He agreed that his design was preliminary and that he was not ready to recommend it to a manufacturer. In addition, Packman conceded that a person climbing the ladder would find his proposed mechanism somewhat awkward and that using the mechanism could cause the ladder to get out of balance and slide. He was also questioned about a concern that the line to operate the latch mechanism running the length of the ladder has the potential of being a hazard to the person climbing the ladder. Packman agreed that he never evaluated the risks associated with his proposed alternate design due in part to the fact that it was never completed. Packman also conceded that he did not purport to conduct a risk-benefit analysis of his proposed redesign.

In addition to the Texas Supreme Court's interpretation of the statute in General Motors, we look to decisions of this court considering whether such proof was adequate to satisfy a similar statutory burden imposed by Louisiana. In Lawrence v. General Motors Corp., 73 F. 3d 587, 590 (5th Cir. 1996), we considered

whether the evidence was sufficient to satisfy a very similar Louisiana statute,<sup>3</sup> and concluded that a declaration by the plaintiff's expert that a proposed alternative design could have prevented the plaintiff's accident was insufficient to establish the statutory requirement. We stated that this expert failed to "elaborate on the actual likelihood of avoiding the probable damage through an alternative design," "address the burdens or adverse utility effects of his proposed changes, or counter the defendant's claim that these alterations would not have been compatible with the product in its current form. Id. at 590. As a result, we held that the evidence was insufficient as a matter of law to support a finding of design defect. Id. See also, Watkins v. Telsmith, Inc., 121 F. 3d 984 (5th Cir. 1997) (Miss. statute).

After careful review of the record, we conclude that no reasonable jury could have found from the evidence that the latching device Dr. Packman proposed adding to the hook assembly

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<sup>3</sup> La. R.S. 9:2800.56 requires that a plaintiff attempting to establish a design defect prove that:

(1) There existed an alternative design for the product that was capable of preventing the claimant's damage; and

(2) The likelihood that the product's design would cause the claimant's damage and the gravity of that damage outweighed the burden on the manufacturer of adopting such alternative design and the adverse effect, if any, on the utility of the product ....

was a safer alternative design as defined by the Texas statute.<sup>4</sup> Dr. Packman conceded that his proposed alternate design would not assist in preventing the hook from sliding on the cable. He also agreed that the only benefit a worker would derive from the alternate design was a reduced jerk at the end of the slide. He was therefore unable to say that his alternate design would have prevented Mr. Smith's fall. Therefore, we conclude that the evidence fails to establish that the alternative design would have "significantly" reduced the risk of Mr. Smith's injury.

Furthermore, Dr. Packman conceded that he made no risk-benefit analysis including what additional hazards would be created in implementing his proposed alternative design. Thus, Dr. Packman's testimony does not establish that his proposed design would not have substantially impaired the ladder's utility. The jury's finding of design defect, therefore, cannot stand.<sup>5</sup>

#### B. Breach of Implied Warranty

Louisville Ladder argues that Smith's breach of implied warranty claim fails for the same reason as his design defect claim: Smith failed to produce sufficient evidence that a safer

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<sup>4</sup>The dissent quarrels with the standard we applied in reviewing the sufficiency of the evidence. This sentence makes it clear that we applied the correct federal standard. Reeves v. Sanderson Plumbing Products, 120 S.Ct. 2097, 2102 (2000).

<sup>5</sup>This disposition makes it unnecessary for us to reach appellant's argument that the district court erred in admitting Dr. Packman's testimony as reliable under Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993).

alternative design of the extension ladder with cable hook accessory exists. As the above discussion reflects, our review of the record leads us to conclude that Smith failed to establish a safer alternate design to the Louisville Ladder involved in this accident. Texas Civil Practice & Remedies Code § 82.005, which requires a claimant to prove a safer alternative design, applies to all products liability actions whether brought as strict liability, as breach of implied warranty, or a combination of those theories. See Tex. Civ. Practice & Remedies Code § 82.001(2).

The Texas Supreme Court made this point clear in Hyundai Motor Co. v. Rodriguez, 995 S.W.2d 661 (Tex. 1999). In that case, the plaintiff was injured in a crash of a Hyundai. She sued on a theory that the vehicle was not crash-worthy and was defective for that reason. The trial court submitted the plaintiff's negligence and design defect theories to the jury, but refused to submit the plaintiff's breach of warranty theory on grounds that this was duplicative of the design defect theory.

Although this case was tried before 1993, the year § 82.005 was adopted, the court held that even under the pre-1993 law, the issues regarding the existence of design defect and breach of warranty were identical. Consequently, the Supreme Court of Texas concluded that the trial court had properly declined to submit the breach of warranty claim to the jury.

With respect to post-1993 claims under § 82.005, the court

stated: "for cases tried since the 1993 effective date of Chapter 82 of the Civil Practice and Remedies Code, the findings required to establish a design defect claim are identical, regardless of the legal theory asserted." Hyundai Motor Co., 995 S.W.2d at 667; Tex. Civ. Practice & Remedies Code § 82.001(2), 82.005.

In sum, because Smith failed to establish a safer alternative design for the ladder in use at the time of the accident, his claim predicated on breach of implied warranty must fail, along with his design defect claim.

### III

Louisville challenges the jury's finding of marketing defect on the ground that it had no duty to warn of the risk of lateral cable slides and specific precautions to prevent such slides beyond the statements it provided on its ladder. The warning label on its ladder directed users to "[s]ecure top and bottom of the ladder from movement where possible" and that "serious personal injuries" could result from failure to follow instructions. Louisville states that the ladder was marketed to users in the telecommunications industry who possessed special knowledge of slide hazards and expertise in stabilizing the ladder to avoid this hazard.

Smith does not dispute that Louisville's ladders are marketed solely to the telecommunications industry, that he works in that industry, or that his profession has knowledge of the hazards of

lateral cable slides. He argues that, nevertheless, the jury was entitled to find that workers in his industry do not have expertise relative to how these ladders can be secured to avoid the sliding during initial ladder ascent; that is, before the worker reaches the strand and ties the ladder to the strand or to an adjacent utility pole. Furthermore, Smith asserts that Louisville's warnings were vague and failed to provide an answer to this problem.

Even a product that is safely designed and manufactured may be unreasonably dangerous as marketed because of a lack of adequate warnings or instructions.<sup>6</sup> However, under Texas law, "there is no duty to warn when the risks associated with a particular product are matters 'within the ordinary knowledge common to the community' "<sup>7</sup>, and a supplier may rely on the professional expertise of the user in tailoring its warning.<sup>8</sup> Moreover, while industry

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<sup>6</sup>See Lucas v. Texas Industries, Inc., 696 S.W.2d 372, 377 (Tex. 1984).

<sup>7</sup>American Tobacco Co. v. Grinnell, 951 S.W.2d 420, 426 (Tex. 1997) (quoting Joseph E. Seagram & Sons v. McGuire, 814 S.W.2d 385, 388 (Tex. 1991)). See also Koonce v. Quaker Safety Products & Mfg., 798 F.2d 700 (5th Cir. 1986) (ruling that a manufacturer has no duty to warn a user who should reasonably have knowledge of the dangers involved and may rely on the user's special expertise or knowledge in making this determination).

<sup>8</sup>See Sauder Custom Fabrication, Inc. v. Boyd, 967 S.W.2d 349, 350 (Tex. 1998) (citing Texas precedent and the Restatement (Third) of Torts: Prod. Liab. § 2, cmt. j); Pavrides v. Galveston Yacht Basin, Inc., 727 F.2d 330, 338-39 (5th Cir. 1984) (holding that where a "product is marketed solely to professionals experienced in using the product, the manufacturer may rely on the knowledge which a reasonable professional would apply in using the product.").

knowledge is an objective inquiry,<sup>9</sup> it is a question of fact to be resolved by the jury in cases involving conflicting evidence on the issue.<sup>10</sup>

The jury in this case was charged with determining whether Louisville Ladder's warnings were adequate in light of the telecommunications industry's knowledge of lateral cable slides and available techniques for avoiding such slides. Smith does not dispute industry knowledge that such slides are a common hazard; thus, the question narrows to whether the jury was entitled to find that the telecommunications industry was unaware of procedures to avoid this hazard during a user's initial ascent of a cable extension ladder. We therefore turn to the record to assess whether, based on the evidence presented at trial, a reasonable jury could have found inadequate industry knowledge of this hazard and the appropriate precaution to avoid it.

Louisville introduced extensive evidence bearing on industry expertise on this hazard: (1) *The Longview Cable TV Safety Manual* ("Longview Safety Manual"); (2) *The Society of Cable Television Engineer's Health and Safety Manual Book III: Field and Plant Safety* ("Society Safety Manual"); (3) Two industry videotapes on ladder safety; and (4) *The AT&T Company Standard, Bell System*

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<sup>9</sup>See *Sauder Custom*, 967 S.W.2d at 350.

<sup>10</sup>See *Hamilton v. Motor Coach Industries, Inc.*, 569 S.W.2d 571, 577 (Tex. Civ. App.-Texarkana 1978, no writ).

*Practices Manual for the Use of Extension Ladders and Attachments* ("AT&T Ladder Manual"). Taken together, these documents and videos provide such compelling proof that Smith's industry had common knowledge of adequate pre-ascent stabilization techniques that no reasonable fact finder could have found to the contrary.

First, Longview's own safety manual has a section concerning ladder placement, which stresses the importance of "proper positioning" and indicates that it may be "necessary" to "secur[e] the ladder with a rope" during placement.<sup>11</sup> Second, relevant portions of the *Society Safety Manual* emphasize that "[n]umerous accidents may occur each year due to the improper use of ladders [, and, thus,] employees are expected to use ladders carefully and deliberately, paying close attention to their own safety as well as the safety of others" and "[w]hen used on a strand, extension ladders should be securely lashed to the strand, or guarded by an employee at the bottom of the ladder." Third, the two industry safety videos repeatedly underscore the importance of establishing appropriate ladder stability during positioning and illustrate numerous possible pre-ascent stabilization techniques that would

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<sup>11</sup> Wehco Media, Inc., *Safety*, Ch. 2, 5 ("**Position:** Proper positioning of ladders can greatly reduce the risk of accident by assuring a 'climbing space' of thirty square inches, being aware of slack spans which could cause a ladder to slide, looking up to identify hazards before positioning the ladder, adjusting the ladder for the proper height and support ratio (for each four feet of height, the base should be out one foot), and by *securing the ladder with a rope if necessary.*") (emphasis added).

have been applicable to Smith's accident.<sup>12</sup> For example, in *Ladder Safety*, the more cursory of the two videos, the narrator states that when placing ladders, users should "make sure that [they] won't slip; lash [them] if necessary, or get someone else to hold" them during use.<sup>13</sup> Furthermore, *Extension Ladder Training Course*, the more lengthy and thorough videotape, extensively deals with using hook extension ladders against cable strands and instructs operators to "secure the ladder to the strand" with the hooks alone only if the job does not require "pushing, pulling, or excessive strain."<sup>14</sup> Otherwise, the video directs users to "raise the ladder two or three rungs above the strand" before climbing.<sup>15</sup> Moreover, in a broader discussion of general ladder placement on slippery surfaces, this tape explains that "ladders can be prevented from sliding by tying the base of the ladder to a stable structure or hav[ing] someone 'foot' the ladder."<sup>16</sup> Finally, the *AT&T Manual* strongly illustrates the prevalence of pre-ascent ladder

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<sup>12</sup>Ladder Safety (Safety Short Production 1988) (running approximately 5.5 minutes); Videotape T-1043 on Extension Ladders: Extension Ladder Training Course developed by the Atlee Cullison Training School (Society of Cable Television Engineers) (running approximately 32 minutes).

<sup>13</sup>Ladder Safety, at running time 3:10 (emphasis added).

<sup>14</sup>Extension Ladder Training Course, at running time 24:20 et seq.

<sup>15</sup>Id.

<sup>16</sup>Id. at running time 30:50.

stabilization techniques by: (1) Cautioning operators to "always remember to first make the ladder secure;"<sup>17</sup> (2) Instructing them to "make certain the ladder is placed on firm and level footing to prevent the ladder from twisting or sliding along the strand;"<sup>18</sup> (3) Indicating that "[l]adder strand hooks shall be used on lashed, ring-supported, and self-supporting cable when the ladder is not lashed to the strand;"<sup>19</sup> and most significantly (4) Providing the following explanation of how to prevent cable extension ladder slides:

When using a ladder on a strand having a fairly steep slope, secure the ladder with rope to prevent the top of the ladder from sliding along the strand. Before raising the ladder, throw or place a handline over the strand and secure one end of the handline to the second rung from the top of the fly section. After placing the ladder on the strand, pull the other end of the handline taut and secure it to an adequate support on the uphill side of the ladder, such as a pole, tree, or digging bar firmly anchored in the ground. If no such anchorage is obtainable, secure the ladder to the cable strand by throwing the handline over the strand again, so the rope passes twice around the cable . . . strand. Then tie the rope securely to a rung on the base section of the ladder.<sup>20</sup>

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<sup>17</sup>The AT&T Company Standard, Bell System Practices Manual for the Use of Extension Ladders and Attachments, Section 081-740-105, 28 ("The craft person shall always remember to first make the ladder secure, and then secure oneself on the ladder, to avoid falling, in the event of slipping, loss of balance, or if something else goes wrong. The manner in which the craft person is secured to the ladder will depend on the security of the ladder, and the nature of the work to be done.").

<sup>18</sup>Id. at 35.

<sup>19</sup>Id.

<sup>20</sup>Id. at 31.

The overwhelming evidence of industry knowledge of the dangers of extension ladders' sliding on a strand, leads us to question whether Louisville was obliged to give any warning of this hazard. We need not decide whether a warning was required because Louisville supplied a warning that was plainly adequate when considered in light of industry knowledge of this danger and how to avoid it. We conclude, therefore, that Smith did not present sufficient evidence for the jury to find that Louisville failed to adequately warn of this hazard.

#### IV

For the above stated reasons, we conclude that Smith failed to present sufficient evidence at trial to support any of his theories of recovery. The district court's judgment is, therefore, reversed and judgment is rendered in favor of Louisville.

REVERSED and RENDERED.

DENNIS, Circuit Judge, dissenting.

This diversity case was tried under Texas products liability law to a correctly instructed jury that returned a \$1.5 million verdict for the plaintiff. Applying Texas substantive law and this Circuit's federal test for the sufficiency of evidence to create a jury question, the district court denied the defendant's motion for judgment as a matter of law ("JMOL") and rendered judgment on the verdict for the plaintiff. On appeal, the defendant improperly asserts, for the first time, a new ground for a JMOL: Defendant avers that, because "no Texas court has directly addressed the quantum of proof necessary to satisfy" section 82.005 of Texas's Products Liability Act, TEX. CIV. PRAC. & REM. CODE ANN. § 82.005 (Vernon 2000) (hereinafter "TPLA § 82.005"), this court, in deciding whether the record contains sufficient evidence to sustain the jury's verdict, should apply a standard of review based by analogy on section 2800.56 of the Louisiana Products Liability Act ("LPLA"), LA. REV. STAT. ANN. § 2800.56 (West 2000), and section 11-1-63(f)(ii) of the Mississippi Products Liability Act ("MPLA"), MISS. CODE ANN. § 11-1-63(f)(ii) (West 1999), and two federal Erie guesses as to those statutes' substantive meaning.

The majority adopts whole hog the defendant's improperly proffered ground for JMOL, reverses the district court judgment, and renders a JMOL in favor of the defendant. Instead of Texas substantive law, the majority applies by analogy the defendant's

suggested extension of a prior Erie guess as to the meaning of LPLA § 2800.56. Furthermore, instead of the federal test for sufficiency of evidence to create a jury question, the majority applies a sufficiency of quantification of risk and utility evidence test derived from the same extension of a prior Erie guess as to the substantive meaning of LPLA § 2800.56.

I respectfully dissent. The majority's approval of the defendant's assertion of a ground for JMOL that was not included in its motions for JMOL in the district court is a constitutionally impermissible re-examination of the jury's verdict. The majority's adoption of the defendant's assertion causes the court to disregard the controlling principles of Texas and federal law. The Constitution as interpreted by Erie dictates that this court apply the law of Texas defining the substantive rights and obligations of the parties as that state's highest court would apply it, not Louisiana substantive law as we determine how its highest court would apply that sister state's law.<sup>21</sup> Furthermore, it is firmly established that courts in this Circuit, in diversity cases, employ a federal rather than a state-law-based test to determine the

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<sup>21</sup> Erie R.R. Co. v. Tompkins, 304 U.S. 64 (1938). Under Erie, when confronted with a diversity case arising under state law, we must apply the law of that state as the state's highest court would apply it. Id. at 78. If the decisions of that court are silent on an issue, we must conscientiously determine how that court would decide the issue before us, looking to the sources of law—including intermediate appellate court decisions of that state—that the state's highest court would look to for persuasive authority. Transcontinental Gas v. Transportation Ins. Co., 953 F.2d 985, 988 (5<sup>th</sup> Cir. 1992); see also 19 CHARLES ALAN WRIGHT, ARTHUR R. MILLER & EDWARD H. COOPER, FEDERAL PRACTICE AND PROCEDURE § 4507, at 126 (2d ed. 1996).

sufficiency of evidence to create a jury question. Boeing Co. v. Shipman, 411 F.2d 365, 368 (5<sup>th</sup> Cir. 1969) (en banc) ("It is well settled in this Circuit that in diversity cases federal courts apply a federal rather than a state test for the sufficiency of evidence to create a jury question."), overruled in part on other grounds, Gautreaux v. Scurlock Marine, Inc., 107 F.3d 331 (5<sup>th</sup> Cir. 1997) (en banc); see also, e.g., In re Air Crash Disaster Near New Orleans, 821 F.2d 1147, 1159 (1987) (en banc) vacated in part on other grounds sub nom. Pan American World Airways, Inc. v. Lopez, 490 U.S. 1032 (1989); Borel v. Fibreboard Paper Products Corp., 493 F.2d 1076, 1092 (5<sup>th</sup> Cir. 1973). Faithful adherence to the foregoing principles of federal constitutional and state law requires that we affirm the judgment of the district court.

1.

The plaintiff, a cable television lineman, was thrown from the top of a twenty-foot ladder manufactured by the defendant, and suffered severe, disabling spinal injuries. He was hurled to the ground with great centrifugal force after the ladder, which was attached with open U-shaped hooks to a cable near the one he was preparing to repair, slid sideways, causing one of the hooks to become unhooked. This in turn made the ladder twist forcefully at the end of its slide, causing the plaintiff to lose hold and be thrown violently to the street below. The district court, in denying the defendant's motion for JMOL, rejected defendant's

arguments that the evidence as a whole (including circumstantial evidence, testimony of defendant's witnesses, and plaintiff's expert design engineer's tests, explanations, and opinions) was not legally sufficient to support the jury's findings that (1) there was a safer alternative closable cable hook design that would have reduced the risk of the personal injury, making the cable hook, as designed, unreasonably dangerous; (2) the defendant failed to adequately warn users of the danger that, during a ladder slide, the open U-shaped cable hook could come loose from the cable, cause the ladder to twist violently, and hurl a user to the ground with extra-gravitational force; and (3) the ladder's cable hooks as designed were unfit to fulfill their ordinary purpose and use.

2.

On appeal, the defendant asserts a new ground in support of its motion for a JMOL, based on the Louisiana and Mississippi statutes, which was not included in its JMOL motions in the district court. The majority deprives the plaintiff of his Seventh Amendment right to a jury trial by granting a JMOL on a non-Texas and non-federal ground not asserted in the district court.

It is well-settled in this circuit that a motion for JMOL filed post verdict cannot assert a ground that was not included in the motion for JMOL made at the close of the evidence.<sup>22</sup> See, e.g.,

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<sup>22</sup> Rule 50 of the Federal Rules of Civil Procedure provides for JMOL motions at the close of evidence and renewed JMOL motions post verdict, which were formerly referred to as motions for directed verdict and motions for judgment n.o.v. ("JNOV"), respectively; the change in

Brown v. Bryan County, Ok., 219 F.3d 450, 465-66 (5<sup>th</sup> Cir. 2000); Morante v. Am. Gen'l Fin. Center, 157 F.3d 1006, 1010 (5<sup>th</sup> Cir. 1998); see also Allied Bank-West, N.A. v. Stein, 996 F.2d 111, 115 (5<sup>th</sup> Cir. 1993) (explaining that, under Rule 50, a motion for directed verdict is "virtually jurisdictional" so that a motion for judgment n.o.v. cannot assert a ground that was not included in the motion for directed verdict); Perricone v. Kansas City Southern Ry. Co., 704 F.2d 1376, 1380 (5<sup>th</sup> Cir. 1983). In Sulmeyer v. Coca Cola Co., we held that "[i]t would be a constitutionally impermissible re-examination of the jury's verdict for the district court to enter judgment n.o.v. on a ground not raised in the motion for directed verdict." 515 F.2d 835, 846 n.17 (5<sup>th</sup> Cir. 1975); see also 9A CHARLES ALAN WRIGHT & ARTHUR R. MILLER, FEDERAL PRACTICE AND PROCEDURE § 2537 at 344-45, § 2540 at 368-69 (West 1995 & supp. 2000).

In McCann v. Texas City Refining, Inc., 984 F.2d 667 (5<sup>th</sup> Cir. 1993), this court gave expression to the self-evident principle that a court of appeals' re-examination of a jury's verdict to enter a JMOL on a ground not raised in the party's JMOL motion at the close of evidence is also constitutionally impermissible. The McCann court held that (1) "Rule 50(a) requires a motion for a

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terminology did not change the substance or purpose behind the rule. See FED. R. CIV. P. 50 Advisory Committee's Notes ("If a motion is denominated a motion for directed verdict or for judgment notwithstanding the verdict, the party's error is merely formal. Such a motion should be treated as a motion for judgment as a matter of law in accordance with this rule.").

directed verdict to state the specific grounds<sup>23</sup> for granting the motion[;] [a] party may not base a motion for JNOV on a ground that was not included in a prior motion for a directed verdict"; and (2) "It would be a constitutionally impermissible re-examination of the jury's verdict for the district court [or this Court] to enter judgment n.o.v. on a ground not raised in the motion for directed verdict.'" 984 F.2d at 672 (quoting Sulmeyer, 515 F.2d at 846 n.17) (brackets and included material added by McCann court) (emphasis added). Under the clear mandate of this court's previous decisions, the majority here should not have even considered the ground for JMOL urged on appeal by defendant—that it was entitled to JMOL under this court's Erie guesses regarding Louisiana and Mississippi products liability law—which was not included in its JMOL motions at the close of plaintiff's case and at the close of all the evidence. See id. at 671 (citing Scheib v. Williams-McWilliams Co., 628 F.2d 509, 511 n.1 (5<sup>th</sup> Cir. 1980)), and at 672; see also Alcatel USA, Inc. v. DGI Technologies, Inc., 166 F.3d 772, 780 (5<sup>th</sup> Cir. 1999); Purcell v. Sequin State Bank & Trust Co., 999 F.2d 950, 956-57 (5<sup>th</sup> Cir. 1993).

3.

"It clearly is settled that the right of jury trial in a case

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<sup>23</sup> At this point, the McCann court's footnote 6 explains: "Rule 50(a)'s 'specific grounds' requirement serves both to make the trial court aware of the movant's position and to give the opposing party an opportunity to mend its case." 984 F.2d at 672 n.6 (citing Hall v. Crown Zellerbach Corp., 715 F.2d 983, 986 (5<sup>th</sup> Cir. 1983)).

lodged in a federal court is governed by federal law and that state law has no application." 9A WRIGHT & MILLER, supra, § 2525 at 266; see also id. § 2303 at 63 ("The complete dominance of federal law in the area of jury trial rights is clear.") (citing Goar v. Compania Peruana de Vapores, 688 F.2d 417, 423 (5<sup>th</sup> Cir. 1982); Hensley v. E.R. Carpenter Co., 633 F.2d 1106, 1110 n.5 (5<sup>th</sup> Cir. 1980); Nunez v. Superior Oil Co., 572 F.2d 1119, 1125 (5<sup>th</sup> Cir. 1978); Ammons v. Franklin Life Ins. Co., 348 F.2d 414, 416 (5<sup>th</sup> Cir. 1965)). In this Circuit, it is equally well established "that in diversity cases federal courts apply a federal rather than a state test for the sufficiency of evidence to create a jury question." Boeing, 411 F.2d at 368 (5<sup>th</sup> Cir. 1969) (citing Helene Curtis Indus., Inc. v. Pruitt, 385 F.2d 841 (5<sup>th</sup> Cir. 1967); Planters Mfg. Co. v. Protection Mut. Ins. Co., 380 F.2d 869 (5<sup>th</sup> Cir. 1967); Revlon, Inc. v. Buchanan, 271 F.2d 795, (5<sup>th</sup> Cir. 1959); Reuter v. Eastern Air Lines, 226 F.2d 443 (5<sup>th</sup> Cir. 1955)). In Boeing, this court explained: "Federal courts must be able to control the fact-finding processes by which the rights of litigants are determined in order to preserve 'the essential character' of the federal judicial system. Of course, we do not contend that this control will not affect state-created substantive rights in some cases. Ultimately, however, the integrity of our factfinding processes must outweigh considerations of uniformity." 411 F.2d at 369-70 (citing Herron v. Southern Pac. Co., 283 U.S. 91 (1931);

Byrd v. Blue Ridge Rural Elec. Coop., 356 U.S. 525 (1958); Note, State Trial Procedure and the Federal Courts: Evidence, Juries, and Directed Verdicts Under the Erie Doctrine, 66 HARV. L. REV. 1516, 1525 (1953)). There are many other persuasive statements of the reasons for the rule. See, e.g., Wratchford v. S.J. Groves & Sons Co., 405 F.2d 1061, 1065-66 (4<sup>th</sup> Cir. 1969) ("An equally grave disruption of the federal system would result from the application of state law rules as to the sufficiency of evidence to go to the jury. Indeed, it has been suggested, not without reason, that the Seventh Amendment commands application of federal rather than state law here. Faith in the ability of a jury, selected from a cross-section of the community, to choose wisely among competing rational inferences in the resolution of factual questions lies at the heart of the federal judicial system. That faith requires consistency within the system and does not permit the accommodation of more restrictive state laws."); 9A WRIGHT & MILLER, supra § 2525, at 271 ("In the occasional case in which there is a measurable difference between the state and federal rules on the sufficiency of evidence to create a jury issue, principle seems to require that the federal court apply the federal test. Any other result would be difficult to reconcile with the Herron case and with the pronouncement in Byrd v. Blue Ridge Rural Electric Cooperative, Inc., that there is 'a strong federal policy against allowing state rules to disrupt the judge-jury relationship in the federal courts' and that this

policy outweighs the policy of the Erie doctrine.”). In many other circuits it is now settled that a federal test controls on the question of sufficiency of the evidence. See 9A WRIGHT & MILLER, supra § 2525 at 272 & n.19.

4.

The Supreme Court, in Reeves v. Sanderson Plumbing Products, Inc., articulated the federal test for sufficiency of evidence to create a jury issue in a case concerning “the kind and amount of evidence necessary to sustain a jury’s verdict that an employer unlawfully discriminated on the basis of age.”<sup>24</sup> – U.S. –, –,120 S.Ct. 2097, 2102 (2000). “Under Rule 50, a court should render judgment as a matter of law when ‘a party has been fully heard on an issue and there is no legally sufficient evidentiary basis for a reasonable jury to find for that party on that issue.’” Id. at 2109 (quoting FED. R. CIV. P. 50(a) and citing Weisgram v. Marley Co., 528 U.S. 440,–, 120 S. Ct. 1011, 1016-18 (2000)). In Reeves, the Court noted that the courts of appeals have articulated differing formulations as to what evidence a court is to consider in ruling on a Rule 50 motion, although “most have held that review extends to the entire record, drawing all reasonable inferences in favor of the nonmovant.” Id. at 2110 (citing Tate v. Government Employees Ins. Co., 997 F.2d 1433, 1436 (11<sup>th</sup> Cir. 1993); Boeing,

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<sup>24</sup> This court observed in McCann that “[r]eviewing a denial of a motion for directed verdict made at the end of trial and reviewing the sufficiency of the evidence are one and the same thing.” 984 F.2d at 671.

411 F.2d at 374). Moreover, the Reeves Court observed, “[i]n the analogous context of summary judgment under Rule 56, we have stated that the court must review the record ‘taken as a whole.’” Id. (citing Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 587 (1986)). “And,” the Court stated, “the standard for granting summary judgment ‘mirrors’ the standard for judgment as a matter of law, such that ‘the inquiry under each is the same.’” Id. (quoting Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 250-251 (1986); citing Celotex Corp. v. Catrett, 477 U.S. 317, 323 (1986)). Accordingly, the Court concluded that “in entertaining a motion for judgment as a matter of law, the court should review all of the evidence in the record.” Id.

Further, the Court in Reeves set forth principles for courts to follow in reviewing all of the evidence in the record:

[T]he court must draw all reasonable inferences in favor of the nonmoving party, and it may not make credibility determinations or weigh the evidence. Credibility determinations, the weighing of the evidence, and the drawing of legitimate inferences from the facts are jury functions, not those of a judge. Thus, although the court should review the record as a whole, it must disregard all evidence favorable to the moving party that the jury is not required to believe. That is, the court should give credence to the evidence favoring the nonmovant as well as that evidence supporting the moving party that is uncontradicted and unimpeached, at least to the extent that that evidence comes from disinterested witnesses.

Id. (internal quotations and citations omitted).<sup>25</sup>

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<sup>25</sup> The test set forth by this court in Boeing closely resembles the Supreme Court’s Reeves standard:

5.

a.

Before applying the federal test articulated by the Supreme Court in Reeves for the sufficiency of evidence to create a jury question to the relatively few factual issues in dispute, the Constitution, per Erie, requires that we focus on the pertinent Texas substantive law. Contrary to the majority opinion, the Texas

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On motions for directed verdict and for judgment notwithstanding the verdict the Court should consider all of the evidence—not just that evidence which supports the non-mover’s case—but in the light and with all reasonable inferences most favorable to the party opposed to the motion. If the facts and inferences point so strongly and overwhelmingly in favor of one party that the Court believes that reasonable men could not arrive at a contrary verdict, granting of the motions is proper. On the other hand, if there is substantial evidence opposed to the motions, that is, evidence of such quality and weight that reasonable and fair-minded men in the exercise of impartial judgment might reach different conclusions, the motions should be denied, and the case submitted to the jury. A mere scintilla of evidence is insufficient to present a question for the jury. The motions for directed verdict and judgment n.o.v. should not be decided by which side has the better of the case, nor should they be granted only when there is a complete absence of probative facts to support a jury verdict. There must be a conflict in substantial evidence to create a jury question. However, it is the function of the jury as the traditional finder of the facts, and not the Court, to weigh conflicting evidence and inferences, and determine the credibility of witnesses.

411 F.2d at 374-75 (footnote omitted); see also Rhodes v. Guiberson Oil Tools, 75 F.3d 989, 993 (5<sup>th</sup> Cir. 1996) (quoting and using the Boeing standard for sufficiency of the evidence); Shipp v. General Motors Corp., 750 F.2d 418, 420 (5<sup>th</sup> Cir. 1985) (“We begin by noting that the jury’s verdict, rendered after eleven days of trial, will not be lightly disregarded. Its findings must be upheld if this court, considering all of the evidence and all of its reasonable inferences in the light most favorable to the winning party, finds that there is substantial evidence ‘of such quality and weight that reasonable and fair-minded men in the exercise of impartial judgment might reach different conclusions....’” (quoting Boeing, 411 F.2d at 374) (citing Liberty Mut. Ins. Co. v. Falgoust, 386 F.2d 248, 253 (5<sup>th</sup> Cir. 1967)); H&W Indus., Inc. v. Occidental Chem. Corp., 911 F.2d 1118, 1123 (5<sup>th</sup> Cir. 1988); Stewart v. Thigpen, 730 F.2d 1002, 1007 (5<sup>th</sup> Cir. 1984).

jurisprudence on safer alternative design is richly developed.

The Texas Supreme Court and appeals courts have drawn on common law, statutes, and the Restatements in expounding the state's products liability laws. The basic principles of section 402A of the Restatement (Second) of Torts govern claims of strict liability in tort by users or consumers for physical harm caused by a seller's defective and unreasonably dangerous product. The American Tobacco Co. v. Grinnell, 951 S.W.2d 420, 426 (Tex. 1997); McKisson v. Sales Affiliates, Inc., 416 S.W.2d 787, 788-789 (Tex. 1967). A product may be unreasonably dangerous because of a defect in marketing, design, or manufacturing. Caterpillar, Inc. v. Shears, 911 S.W.2d 379, 382 (Tex. 1995).

The alleged design defect of the defendant's cable hook was causally related to Mr. Smith's being thrown from the ladder with centrifugally increased gravitational acceleration and not to the lateral slide that began the ladder accident. Nevertheless, the same rules of strict liability govern cases in which the defect caused the initial accident and cases in which the defect caused or aggravated the injuries. Boatland of Houston, Inc. v. Bailey, 609 S.W.2d 743, 745 (Tex. 1980); Turner v. General Motors Corp., 584 S.W.2d 844, 848 (Tex. 1979).

In Turner v. General Motors Corp., the Texas Supreme Court discussed the strict liability standard of "defectiveness" as applied in design defect cases. The court held that, in a design

defect case, evidence is admissible upon the factors of risk and utility, such as the product's utility to users and to the public as a whole balanced against the likelihood and severity of injury from its use; the availability of an alternative product that would fill the same need without being unsafe or unreasonably costly; the ability to eliminate the product's unsafe character without significantly impairing its utility or increasing its cost; the consumer's awareness of the product's inherent dangers; the avoidability of those dangers because of their obvious nature or because of warnings supplied by the manufacturer; and the ordinary consumer's expectations. 584 S.W.2d at 846. However, the court also held that the jury must be instructed only in general terms to consider the utility of the product and the risks involved in its use, and that the jury should not be instructed to balance specifically enumerated factors. Id. at 847-48. The court set forth an approved jury instruction for this purpose.<sup>26</sup> Id. at 847

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<sup>26</sup> The court's approved jury instruction reads:

**SECIAL ISSUE NO. 1**

Do you find from a preponderance of the evidence that at the time the (product) in question was manufactured by (the manufacturer) the (product) was defectively designed?

By the term 'defectively designed' as used in this issue is meant a product that is unreasonably dangerous as designed, taking into consideration the utility of the product and the risk involved in its use.

Answer: "We do" or "We do not."

584 S.W.2d at 847 n.1. The court went on to state:

n.1; 849. This requirement of the Texas court regarding the factors to be considered in Texas products liability cases has been recognized by this court. See Shipp, 750 F.2d at 421-22 (5<sup>th</sup> Cir. 1983) ("Texas courts have advanced balancing criteria to which strict liability parties should direct their evidence, but as the district judge did here, have only required that the jury be instructed in general terms to consider the utility of the product and the risk involved in its use. ...The Texas Supreme Court has never explicitly made proof of each balancing factor a distinct element of a strict liability claim. ...And certainly, that the jury is instructed in ultimate terms without detailing the criteria is at odds with the notion that proof of each is required." (citations, footnotes and internal quotations omitted)).

In Boatland, the Texas Supreme Court held that the jury in a design defect case may consider evidence of a safer design that would have prevented the injury. 609 S.W.2d at 746 (citing Turner and the factors listed therein). "Because defectiveness of the product in question is determined in relation to safer alternatives, the fact that its risks could be diminished easily or cheaply may greatly influence the outcome of the case." Id.

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Accordingly, we approve the form of jury submission stated in the forepart of this opinion to be effective in the trial of design defect strict liability cases after the date on which our judgment herein becomes final. The issue and instruction will be in this form when the considerations of utility and risks are present in the state of the evidence, and in such cases should serve as an appropriate aid to the jury in its deliberations.

Id. at 851.

Further, the Boatland court stated:

A plaintiff may advance the argument that a safer alternative was feasible with evidence that it was in actual use or was available at the time of manufacture. Feasibility may also be shown with evidence of the scientific and economic capacity to develop the safer alternative. Thus, evidence of the actual use of, or capacity to use, safer alternatives is relevant insofar as it depicts the available scientific knowledge and the practicalities of applying that knowledge to a product's design. This method of presenting evidence of defective design is not new to the Texas law of product liability.

Id. (citing Rourke v. Garza, 530 S.W.2d 794 (Tex. 1975); Henderson v. Ford Motor Co., 519 S.W.2d 87 (Tex. 1974); Williams v. General Motors Corp., 501 S.W.2d 930 (Tex. App.-Houston 1973); Hartzell Propeller Co. v. Alexander, 485 S.W.2d 943 (Tex. App.-Waco); Pizza Inn, Inc. v. Tiffany, 454 S.W.2d 420 (Tex. App.-Waco 1970)); see also Cantrell v. Hennessy Indus., Inc., 829 S.W.2d 875, 877 (Tex. App.-Tyler 1992) ("Courts must determine whether a product is defectively designed in relation to safer alternatives."); RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2 Reporters' Note at 59 ("The longstanding reasonable alternative design requirement in Texas has been codified by statute." (quoting and citing TPLA § 82.005)).

In 1993, Texas codified the safer alternative design factor, making it an essential element of a design defect claim. TPLA § 82.005; see also Uniroyal Goodrich Tire Co. v. Martinez, 977 S.W.2d 328,334 n.3 (Tex. 1998); American Tobacco Co., 951 S.W.2d at 433 n. 9. Section 82.005 does not attempt to state all the elements of

a design defect claim, however. Hernandez v. Tokai Corp., 2 S.W.3d 251, 256 (Tex. 1999). For example, it does not define design defect or negate the common law requirement that such a defect render the product unreasonably dangerous. Id. The statute was not intended to, and does not, supplant the Texas common law risk-utility analysis Texas has for years employed in determining whether a defectively designed product is unreasonably dangerous. Id. at 256 n.5 (citing legislative debates), and n.6 (citing Turner, 584 S.W.2d at 847). That analysis still permits strict liability parties to direct their evidence to the various balancing criteria listed in Turner, while the jury can be instructed only in general terms and cannot be required to perform a balancing of enumerated factors. Id. at 256 n.6. The only change rendered by section 82.005 is that it converts two elements—a safer alternative design and producing cause—to necessary, though not sufficient, elements in proving a defective design claim.<sup>27</sup> Id. at 256. Essentially, section 82.005(b), which is fully quoted in the

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<sup>27</sup> As explained by the Hernandez court:

Section 82.005 reflects the trend in our common-law jurisprudence of elevating the availability of a safer alternative design from a factor to be considered in the risk-utility analysis to a requisite element of a cause of action for defective design. The Restatement (Third) of Torts: Products Liability also makes a reasonable alternative design a prerequisite to design-defect liability, as does the law in most jurisdictions.

Id. at 256-57 (footnotes omitted); see also Uniroyal Goodrich, 977 S.W.2d at 334 n.4 (pointing out that the court in Caterpillar, 911 S.W.2d at 384 (Tex. 1995), which did not mention § 82.005, made clear that a safer alternative is a prerequisite to a finding of design defect, and that the Caterpillar court's approach is reflected in the Restatement (Third)).

majority opinion, defines "safer alternative design" so as to require a plaintiff proving a design defect to show that (1) there was an alternative design; (2) which would, "in reasonable probability," have prevented or significantly reduced the risk of injury; (3) without substantially impairing the product's utility; and (4) which was technologically and economically feasible when the product left the control of the manufacturer. See TPLA § 82.005.

Subsequent to the enactment of section 82.005, the Texas Supreme Court, in expounding Texas's strict tort liability design defect law, has often relied upon other sources consistent with section 82.005, especially the Restatement (Third) of Torts: Products Liability. For example, in General Motors Corp. v. Sanchez, the court affirmed judgment upholding plaintiffs' jury verdict based on an expert's testimony as to an untested and unbuilt alternative design for the transmission of a pickup truck. 997 S.W.2d 584. 592 (Tex. 1999). Relying in part on the new Restatement, the court held:

[T]he plaintiffs did not have to build and test an automobile transmission to prove a safer alternative design. A design need only prove "capable of being developed[,]" [quoting Boatland, 609 S.W.2d at 748]. The Restatement (Third) of Torts: Products Liability takes the position that "qualified expert testimony on the issue suffices, even though the expert has produced no prototype, if it reasonably supports the conclusion that a reasonable alternative design could have been practically adopted at the time of sale."

Id. (citing and quoting RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY §

2 cmt. f (1998)).

In Uniroyal Goodrich, the court adopted and applied Restatement (Third) of Torts: Products Liability § 2 cmt. 1 in affirming judgment holding a tire manufacturer strictly liable based on defective design, although there was evidence that the cause of the accident was mounting and inflating a tire in contravention of a warning on the product:

"Reasonable designs and instructions or warnings both play important roles in the production and distribution of reasonably safe products. In general, when a safer design can reasonably be implemented and risks can reasonably be designed out of a product, adoption of the safer design is required over a warning that leaves a significant residuum of such risks. For example, instructions and warnings may be ineffective because users of the product may not be adequately reached, may be likely to be inattentive, or may be insufficiently motivated to follow the instructions or heed the warnings. However, when an alternative design to avoid risks cannot reasonably be implemented, adequate instructions and warnings will normally be sufficient to render the product reasonably safe. Warnings are not, however, a substitute for the provision of a reasonably safe design."

977 S.W.2d at 336 (quoting RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2 cmt. 1); see also Hernandez, 2 S.W.3d at 257 & n.9 (comparing § 82.005 with similar provisions of the Restatement (Third) of Torts: Products Liability § 2(b): "A product ... is defective in design when the foreseeable risks of harm posed by the product could have been reduced or avoided by the adoption of a reasonable alternative design ..., and the omission of the alternative design renders the product not reasonably safe").

We have recognized that “[t]he Texas Supreme Court has long looked to the Restatement of Torts as an influential guide in products liability law, and has recently heavily relied on the refinements in such law reflected in Restatement Third, Torts: Products Liability.” Cimino v. Raymark Industries, Inc., 151 F.3d 297, 334 (5<sup>th</sup> Cir. 1998) (citing McKisson, 416 S.W.2d at 788-89; Caterpillar, 911 S.W.2d at 381-83 & nn.2&3; Firestone Steel Prods. Co. v. Barajas, 927 S.W.2d 608, 613, 616 (Tex. 1996)); see also Uniroyal Goodrich, 977 S.W.2d at 335. In Cimino, after distinguishing the Texas case relied upon by the district court and reviewing the comments under the new Restatement, this court concluded: “We believe that the Texas Supreme Court would follow the Restatement Third, Torts: Products Liability § 5 [governing the liability of component sellers for harm to a person or property by a product into which the component is integrated].” 151 F.3d at 334.

For all of the foregoing reasons, I believe that the Texas Supreme Court would follow Restatement Third: Products Liability § 2 and its comments with respect to design defects, especially when those provisions are consistent with and complementary to Texas statutory and common law. In addition to those already adopted or followed by the Texas Supreme Court, other provisions of the section 2 comments have particular relevance in the present case. Comment f, in pertinent part, provides:

Subsection (b) states that a product is defective in design if the omission of a reasonable alternative design renders the product not reasonably safe. A broad range of factors may be considered in determining whether an alternative design is reasonable and whether its omission renders a product not reasonably safe. ...A plaintiff is not necessarily required to introduce proof on all of these factors; their relevance, and the relevance of other factors, will vary from case to case.

\* \* \*

While a plaintiff must prove that a reasonable alternative design would have reduced the foreseeable risks of harm, Subsection (b) does not require the plaintiff to produce expert testimony in every case. Cases arise in which the feasibility of a reasonable alternative design is obvious and understandable to laypersons and therefore expert testimony is unnecessary to support a finding that the product should have been designed differently and more safely. ...Furthermore, other products already available on the market may serve the same or very similar function at lower risk and at comparable cost. Such products may serve as reasonable alternatives to the product in question.

In many cases, the plaintiff must rely on expert testimony. Subsection (b) does not, however, require the plaintiff to produce a prototype in order to make out a prima facie case. Thus, qualified expert testimony on the issue suffices, even though the expert has produced no prototype, if it reasonably supports the conclusion that a reasonable alternative design could have been practically adopted at the time of sale.

\* \* \*

A test that considers such a broad range of factors in deciding whether the omission of an alternative design renders a product not reasonably safe requires a fair allocation of proof between the parties. To establish a prima facie case of defect, the plaintiff must prove the availability of a technologically feasible and practical alternative design that would have reduced or prevented the plaintiff's harm. Given inherent limitations on access to relevant data, the plaintiff is not required to establish with particularity the costs and benefits associated with adoption of the suggested alternative design.

RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2 cmt. f (1998).

Comment m of section 2, in pertinent part, provides:

[A] seller bears responsibility to perform reasonable testing prior to marketing a product and to discover risks and risk-avoidance measures that such testing would reveal. A seller is charged with knowledge of what reasonable testing would reveal. If testing is not undertaken, or is performed in an inadequate manner, and this failure results in a defect that causes harm, the seller is subject to liability for harm caused by such defect.

RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2 cmt. m (1998). ~~Comment~~

n of section 2, in pertinent part, provides:

[T]he evidence that the defendant did or did not conduct adequately reasonable research or testing before marketing the product may be admissible (but is not necessarily required) regardless of whether the claim is based on negligence, strict liability, or implied warranty of merchantability. Although a defendant is held objectively responsible for having knowledge that a reasonable seller would have had, the fact that the defendant engaged in substantial research and testing may help to support the contention that a risk was not reasonably foreseeable. Conversely, the fact that the defendant engaged in little or no research or testing may, depending on the circumstances, help to support the contention that, had reasonable research or testing been performed, the risk could have been foreseen.

RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2 cmt. m (1998).

b.

In view of the wealth of decisions by the Texas Supreme Court and appeals courts, I am bewildered by the majority's assertion that "[n]o Texas court has elaborated on the nature of the proof a plaintiff must produce to meet the burden placed on him by [Texas's section 82.005.]" The Texas courts have frequently expanded on the elements of proof and sufficiency of evidence required under section 82.005 and other products liability rules of law. See,

e.g., Hernandez, 2 S.W.3d at 258 ("Section 82.005 ... was not intended to, and does not, supplant the risk-utility analysis Texas has for years employed in determining whether a defectively designed product is unreasonably dangerous." (footnotes omitted)); Sanchez, 997 S.W.2d at 591-92 ("qualified expert testimony on the issue suffices, even though the expert has produced no prototype, if it reasonably supports the conclusion that a reasonable alternative design could have been practically adopted at the time of sale." (quoting and adopting RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2 cmt. f (1998))); Uniroyal Goodrich, 977 S.W.2d at 339 ("The rule ... that expert testimony is generally not conclusive [] follows not because the testimony is from an expert, but because it is opinion testimony. Unless the subject matter is solely for experts, jurors are capable of forming their own opinions from the record as a whole."); McGalliard, 722 S.W.2d at 697 (holding that expert testimony is conclusive only where the subject matter is such that "the jury or court cannot properly be assumed to have or be able to form correct opinions of their own based upon evidence as a whole and aided by their own experience and knowledge of the subject of inquiry."); Boatland, 609 S.W.2d at 746 (observing that "feasibility is a relative, not an absolute, concept."); Coxson v. Atlanta Life Ins. Co., 179 S.W.2d 943, 945 (Tex. 1944) (noting that expert testimony, although persuasive, is rarely conclusive proof); Sipes v. General Motors Corp., 946 S.W.2d 143, 154-55 (Tex. App.

1997) (finding that lay testimony will often suffice in design defect case where design concept was simple and easy to grasp) (cited approvingly by Perez-Trujillo v. Volvo Car Corp., 137 F.3d 50, 56 (1<sup>st</sup> Cir. 1998)); see also Turner, 548 S.W.2d at 848 (holding that design defect may be proved through circumstantial evidence) (citing Darryl v. Ford Motor Co., 440 S.W.2d 630 (Tex. 1969)); Pittsburg Coca-Cola Bottling Works of Pittsburg v. Ponder, 443 S.W.2d 546, 548 (Tex. 1969) (same); Ford Motor Co. v. Gonzalez, 9 S.W.3d 195, 199 (Tex. App. 1999) (same); accord Ayres v. Sears, Roebuck & Co., 789 F.2d 1173, 1175 (5<sup>th</sup> Cir. 1986) (observing that a Texas design defect is "provable by direct or circumstantial evidence, based on fact or opinion testimony."), abrogated on other grounds, Torres v. Oakland Scavenger Co., 487 U.S. 312 (1988).

Equally perplexing is the majority's seeming Erie guess that the Texas Supreme Court would depart from its own well-developed jurisprudence and embrace the LPLA to decide the present case. The Texas courts have looked to the Second and Third Restatements of Torts for guidance in products liability cases, but I have not found any Texas case advertent to the LPLA. Such an event seems highly unlikely, considering that section 82.005 "is not declarative, by implication or otherwise, of the common law of Texas with respect to any product[.]" TPLA § 82.005(e).

Moreover, the LPLA differs markedly from section 82.005 in that the LPLA requires a "weighing" of likelihood and gravity of

the claimant's damage against the burdens of the alternative design, not just economic and technological "feasibility"; requires the claimant to show that the alternative design was capable of "preventing," not just "significantly reducing the risk of," the claimant's injury; and the LPLA is the exclusive products liability law in its jurisdiction, not merely a partial, non-expansible codification.

The majority's most audacious claim, however, is that the Texas Supreme Court would read the word "elaborate" in one of our opinions<sup>28</sup> under the LPLA as meaning "mathematically quantify," that the Texas Supreme Court in turn would read that meaning into the LPLA, and that the Texas Supreme Court would then follow that

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<sup>28</sup> The decision the majority relies on—Lawrence v. General Motors Corp., 73 F.3d 587 (5<sup>th</sup> Cir. 1996)—involved a case in which the plaintiff's car suddenly accelerated and crashed into a tree. After examining the wreckage, the plaintiff's expert observed that the cruise control cable had become exposed and been crimped in the open-throttle position, and merely "suggested" that the accident "might have [been] prevented" by a longer cruise control cable sleeve; the defense expert countered that the cruise control cable sleeve's length was adequate, and that the wrecked car's cruise control cable was exposed and crimped as a result of the wreck and not as a cause of the wreck. Id. at 589. After quoting from the LPLA's language that a design could be "unreasonably dangerous" if the "likelihood" that the damages were caused by the product's design, coupled with the severity of the damage, "outweighed the burden on the manufacturer" of incorporating an alternative design, this court observed that the plaintiff's expert conclusorily stated that the alternative design "could have prevented" the damages and did not "elaborate on the actual likelihood of avoiding the probable damage through an alternative design." Id. at 590. When read in context, the term "elaborate" in Lawrence does not mean "mathematically quantify." Rather, it was a comment upon the need for the plaintiff's expert to expand on his bare conclusion that a defective product design possibly caused the collision, in order to counter the defense expert's opinion that the collision caused the damage to the product. In Lawrence, the plaintiff's causation theory was highly improbable because the car that the plaintiff had been driving, before accelerating suddenly into a tree, had previously been flooded and had accumulated more than 97,000 miles under two different owners.

convoluted interpretation as its lodestar in developing and applying Texas law in the present case. I eschew further comment.

The majority clearly errs in proceeding to decide this case as if, under Texas law, the plaintiff in a design defect case is absolutely required to present an expert to mathematically quantify risk and utility evidence and to balance risk and utility factors. In a Texas design defect case, evidence is admissible as to many factors, including risk and utility, such as utility of the product to the user, usefulness to the public, and the gravity and likelihood of injury from its use, availability of a suitable substitute product taking into consideration cost of production and any impairment to usefulness, public knowledge or obviousness of dangers of the product, suitable warnings, and expectations of the ordinary consumer. A plaintiff is not necessarily required to introduce proof on all of these factors; their relevance and the relevance of other factors, will vary from case to case. See Temple EastTex, Inc. v. Old Orchard Creek Partners, Ltd., 848 S.W.2d 724, 731 (Tex. App.-Dallas 1992); RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2, comment f (1998); accord Shipp, 750 F.2d at 421. Moreover, under Texas law, it is the jury's function to weigh risks and utilities by deciding whether the product was defectively designed, taking into consideration the utility of the product and the risk involved in its use. Turner, 584 S.W.2d at 847; accord Shipp, 750 F.2d at 421. The jury can be instructed only in general

terms, however, and cannot be required to balance specifically enumerated factors. Id. at 847-48. The notion of mathematical "quantification" appears to be the majority's own invention; no Texas case or law demands expert mathematical quantification of risk or utility factors as a sufficiency of evidence or proof requirement in a products liability case. In fact, Texas applies a "no evidence" test for sufficiency of evidence, see, e.g., Sanchez, 997 S.W.2d at 588 & n.7, an even more deferential review standard than the federal test that the majority displaces with its erroneous "mathematical quantification" standard.

The majority departs from Texas law again in holding that the alternative design presented by Dr. Packman was not valid because he had not introduced a model of a spring loaded cable hook. The Texas products liability law does not, however, require the plaintiff to produce a prototype in order to make out a prima facie case. "[Q]ualified expert testimony on the issue suffices, even though the expert has produced no prototype, if it reasonably supports the conclusion that a reasonable alternative design could have been practically adopted at the time of sale." Sanchez, 997 S.W.2d 584, 592 (Tex. 1999) (quoting RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2, cmt. f (1998)).

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It is apparent here, as it was in Reeves, that the defendant is not entitled to a JMOL. See Reeves, - U.S. -, -, 120 S.Ct. at

2110. In this case, the relevant facts concerning the physical characteristics of the product, the environment of the accident, and the resulting injuries are not in dispute. The causation question is mostly undisputed. The open or unclosed cable hook did not cause the ladder to slide. But it is undisputed that if the hook had been closed in some manner it would not have become disengaged from the cable during the slide. And the evidence overwhelmingly supports the jury's finding that the disengagement of the open cable hook during the slide caused an abrupt jerk and twist of the ladder; that the resulting torsional force caused Mr. Smith to loose his grip and be flung violently to the ground; and that consequently he suffered much more severe injuries than he would have sustained in a less accelerated fall. The jury reasonably could have chosen not to credit the testimony of the defendant's witness who opined that Mr. Smith would have fallen off even if the cable hook had stayed hitched. None of the defense witnesses contested the conclusion of the plaintiff and his witnesses that a closed cable hook would have reduced the force of the ladder's twist and jerk and in turn the acceleration of his descent.

Dr. Paul F. Packman, the plaintiff's expert, has a bachelor's degree in mechanical engineering, a master's degree in metallurgical engineering and a Ph.D. in solid state science. He has investigated accidents for Lockheed Aircraft Corporation; acted

as a Senior Resident Fellow for the National Academy of Sciences; investigated airplane crashes, battle fatigue, and other battle damage issues for the United States Air Force; chaired the Department of Material Sciences and Metallurgical Engineering at Vanderbilt University; chaired the Civil and Mechanical Engineering Department at Southern Methodist University; and taught mechanical engineering design for thirty years at those universities and as an adjunct professor at Georgia Tech University. He is a professor of Mechanical and Materials Engineering at Southern Methodist University and has published numerous articles on mechanical engineering and related topics.

Dr. Packman testified that a safer alternative design could be devised by converting the open U-shaped cable hook to a closable one by adding a spring latch to prevent disengagement of the hook from the cable during a lateral slide. Dr. Packman conducted a series of three comparative tests with a ladder identical to the one involved in Mr. Smith's accident on the same type of cable and slope, with 200 pounds of steel weights attached to platform atop the ladder simulating the inertia created by Mr. Smith's body. The first test was performed with an open cable hook like the one attached to the ladder when it was manufactured. As the ladder slid down the slope of the cable, the trailing hook came off the cable, causing the ladder to spin violently. The torsional force caused the weights to break loose and be thrown from the ladder.

The second test was performed under the same conditions except that the open end of the cable hook was closed with a bolt. In the slide during this test the ladder's twist and jerk was significantly reduced and the weights stayed in place on the ladder. The third test was a repeat of the first but also included a close-up video-taping of the open cable hook's disengagement from the cable during the slide. According to Dr. Packman, the tests demonstrated that the torsion created by the cable hook's disengagement caused Mr. Smith to lose hold of the ladder and be flung to the ground. If the cable hook had been equipped with a closed spring latch during Mr. Smith's slide, Dr. Packman testified, the prevention of its disengagement would have significantly reduced the risk of his injury by either enabling him to hang on or to prepare for a softer, more controlled landing.

The defendants' counsel were present during Dr. Packman's tests, and defendants' personnel and witnesses were able to review the vide-recording of the tests prior to the litigation. The defendants' witnesses did not criticize the fairness or accuracy of Dr. Packman's tests but had different opinions about what they showed. The defendant did not conduct any tests of its own regarding the latch-closure design for purposes of the litigation. In fact, the defendant did not present any documentation or definite testimony showing that it had ever tested the ladder's performance in a lateral slide at all. If the defendant was aware

of the propensity of the open cable hook to become disengaged and cause the ladder to twist and jerk violently, it did not present any evidence to this effect or provide any warnings or instructions regarding that particular risk with the product.

Based on the foregoing data, Dr. Packman testified that in his opinion the alternative design that he proposed, consisting of a cable hook held closed during engagement by a spring latch, would have prevented or significantly reduced the risk of Mr. Smith's injury; that the alternative design was feasible because the technology of the spring latch was simple, well-known and had been in existence for a very long time; that spring latches were readily available--indeed, agreeing to the statement that they were "available in hardware stores pretty much everywhere"--when the ladder was manufactured; that its attachment to the cable hook would not have impaired the utility of the product significantly; and that a spring-loaded latch was already incorporated into the ladder's design by Louisville Ladder in the ladder's rung-lock mechanism, making the spring latch concept an "absolutely obvious" one of which the defendant was fully aware. Mr. Van Bree, the defendant's representative, testified that Louisville Ladder did, indeed, incorporate the spring-latch design into its rung-lock mechanism, though it had not tested the idea of incorporating the concept into the cable hook.

"In holding that the record contained insufficient evidence to

sustain the jury's verdict, the [majority] misapplie[s] the [federal] standard of review dictated by Rule 50." Reeves, - U.S. -, -, 120 S. Ct. at 2111. The court disregards critical evidence favorable to the plaintiff--all of the witnesses agreed that the closure of the cable hook would prevent its disengagement and reduce the force of the ladder's twisting and jerk during or at the end of its slide; likewise, all agreed that it was impossible to compare with certainty the risks and gravity of injuries likely to result from use of closed and open hooks due to the dynamic nature of the event and the variable conditions of cable slopes, positions of users on ladders during slides, and muscular strengths and stamina of the accident victims. The court also fails to draw all reasonable inferences in favor of Mr. Smith. See id. For instance, the jury reasonably could have found that the closure of the cable hook would have reduced the risk or severity of Mr. Smith's injury by retarding the speed of his fall and ameliorating the force and nature of his impact. And the majority discredits the evidence that clearly shows that Mr. Smith was never warned about the risk of the open cable hook becoming disengaged during a lateral slide and producing overwhelming torsional forces; that the instructions about "securing" the "bottom" of the ladder were ambiguous and did not clearly inform him of how to prevent the top of the ladder from sliding during his ascent; that prior to his injury Mr. Smith was not provided with the information from the

AT&T Manual that the majority quotes in its opinion; that the jury reasonably could have concluded that this was a case in which the feasibility of a reasonable alternative design was obvious and understandable to laypersons and therefore no expert testimony was necessary to support a finding that the product should have been designed differently and more safely, see Sipes, 946 S.W.2d at 154-55, and RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2, cmt. f (1998); that the defendant was already using this spring-loaded latch technology on the ladder's rung-lock assembly; that the testimony of Dr. Packman, and to some extent of the defendants' own experts, reasonably supports the conclusion that a reasonable alternative design could have been practically adopted at the time of sale, see RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2, cmt. f (1998); that the plaintiff established a prima facie case of defect by proving the availability of a technologically feasible and practical alternative design that would have reduced or prevented the plaintiff's harm, see Hernandez, 2 S.W.3d at 255-56 (quoting TPLA § 82.005), and RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2, cmt. f (1998); that given inherent limitations on access to relevant data, the plaintiff was not required to establish with particularity the costs and benefits associated with adoption of the suggested alternative design, see RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2, cmt. f (1998); that the defendant breached its duty to perform reasonable testing prior to marketing the ladder and

to discover risks and risk-avoidance measures that such testing would have revealed, viz., the risk of open-hook disengagement producing overwhelming torsional force during a lateral slide that could be practically avoided by using closable cable hooks, see RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2, cmt. m (1998); that the defendant is charged with the knowledge of what reasonable testing would have revealed, see id.; and because the defendant did not undertake such testing, or performed it in an inadequate manner, that this failure resulted in Mr. Smith's injuries, and defendant is subject to liability for harm caused by the defect, see id.

Moreover, the evidence upon which the majority relies--that due to the imponderable variables none of the experts, including Dr. Packman, were able to mathematically quantify either the likelihood and gravity of the risk or the amount of risk reduction through the use of the alternative design; that Dr. Packman did not manufacture a prototype of his suggested alternative design; that Dr. Packman testified only that the alternative design would prevent cable hook disengagement and thereby reduce torsional forces and in turn reduce the risk and severity of accidents; and that Dr. Packman frankly conceded that he could not testify as to whether the alternative design would have prevented Mr. Smith's accident altogether--"although relevant, is certainly not dispositive." Reeves, - U.S. -, -, 120 S. Ct. at 2111. In

concluding that this testimony so overwhelmed the evidence favoring Mr. Smith that no rational trier of fact could have found that Mr. Smith proved that the defendant's open cable hook was defectively designed for the purposes for which it was sold, the majority impermissibly substitutes its judgment concerning the weight of the evidence for the jury's. Cf. id. I must dissent.<sup>29</sup>

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<sup>29</sup> My review of the full record has also convinced me that the majority's reversal of the jury's verdict regarding Mr. Smith's marketing defect claim was in error. As it did in regards to the design defect claim, the majority reviews only the evidence presented by Louisville Ladder, rather than the whole record, and reviews that evidence in a light hostile to, rather than supportive of, the jury's verdict.