

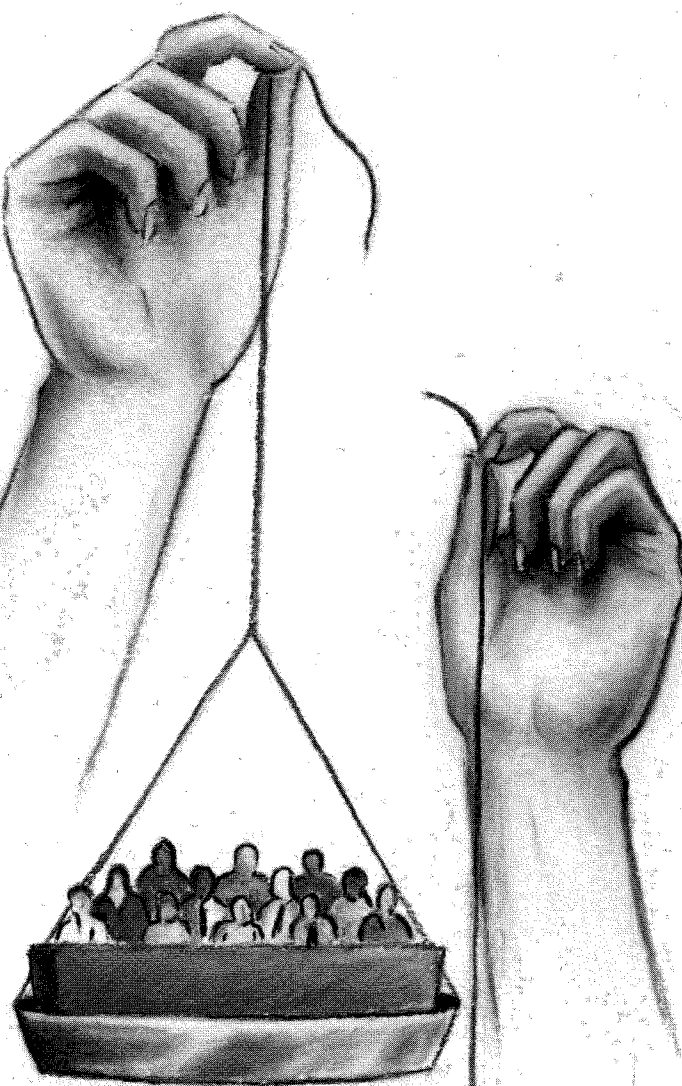
# THE JOURNAL

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## Full and Fair Compensation for Your Clients

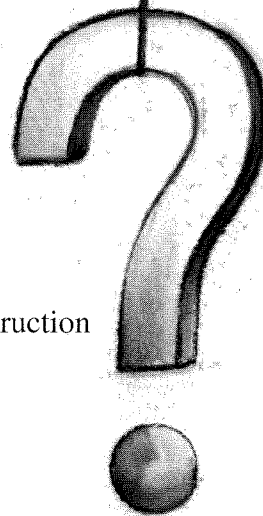
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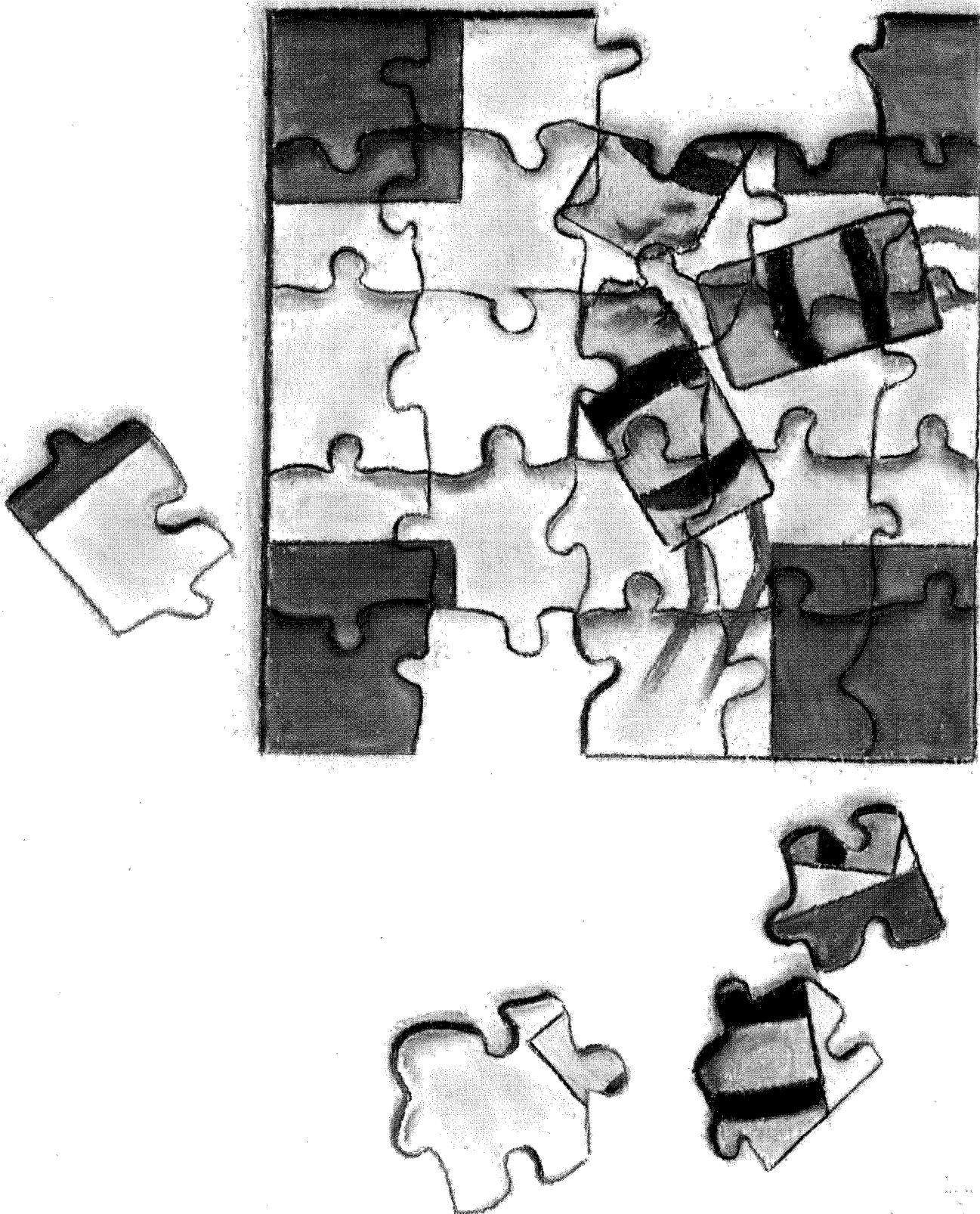
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**Full and Fair Compensation**

# Admissibility of Accident



# Reconstruction in Virginia

by Gerald A. Schwartz

## A. The role of the accident reconstructionist

An accident reconstructionist "reconstructs" an accident mainly from the physical facts found at the accident scene, such as, skid marks, debris, the property damage to the vehicles, the weight of the vehicles and the co-efficient of friction of the roadway. From this type of information, the accident reconstructionist, through the use of physics, the mathematics of motion and calculus renders opinions on important issues (sometimes the ultimate issue) such as the speed of the vehicles or in whose lane the point of impact occurred. Accident reconstruction testimony often can "make or break" a case.

## B. Admissibility of accident reconstruction testimony

### 1. The Law Before July 1, 1993.

- a. **Open Hostility:** Professor Friend, in his textbook, *The Law of Evidence in Virginia*, (4th ed., 1993, Section 17-26), summarizes the more than 40 years of Virginia Supreme Court decisions on the topic in one sentence:  
"Although such testimony has on occasion been admitted, Virginia courts have in general been hostile toward accident reconstruction testimony..."

- b. **The Three Grounds for Inadmissibility of Accident Reconstruction Testimony:**

The Virginia Supreme Court has set forth three reasons for its hostility toward the admissibility of accident reconstruction testimony: (1) accident reconstruction testimony involves matters within the *common knowledge* of the jury; (2) accident reconstruction testimony involves the *ultimate issue of fact* critical to resolution of the case and as such invades the province of the jury; and (3) accident reconstruction testimony is based upon *speculative assumptions and missing variables* which result in a reconstruction of the accident which is not "substantially similar" to the actual crash.

### 2. The Law After July 1, 1993.

- a. **The Outcry:** What happened on July 1, 1993? To find the answer we must go back to Nov. 6, 1992. On that date, the

Supreme Court of Virginia decided *Brown v. Corbin*, 244 Va. 528, 423 S.E.2d 176, where the Court put the "nail in the coffin" to the admissibility of accident reconstruction testimony stating at, 224 Va. 528, 531:

Nonetheless, expert testimony is inadmissible on any subject on which the ordinary lay person of average intelligence is equally capable of reaching his or her own conclusion. (citation omitted). Furthermore, this court repeatedly has held that applying the standard, accident reconstruction expert testimony is rarely admissible in Virginia because it invades the province of the jury. See *Grasty v. Tanner*, 206 Va. 723, 726-727, 146 S.E.2d 252, 254-255 (1966).

*Brown* at 531, 423 S.E.2d at 178-179.

In response to *Brown v. Corbin*, the General Assembly, on July 1, 1993, enacted Virginia Code §8.01-401.3 in an effort to reverse more than 40 years of hostile Supreme Court decisions on the admissibility of accident reconstruction testimony. Is accident reconstruction testimony now admissible? To find the answer, let's analyze Virginia Code §8.01-401.3.

- b. Virginia Code §8.01-401.3 (7/1/93):

- A. In a civil proceeding, if scientific, technical or other specialized knowledge will assist the trier of fact 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.

- B. No expert or lay witness while testifying in a civil proceeding shall be prohibited from expressing an otherwise admissible opinion or conclusion as to any matter of fact solely because that fact is the ultimate issue or critical to the resolution of the case. However, in no event shall such witness be permitted to express any opinion which constitutes a conclusion of law.

C. Except as provided by the provisions of this section, the exceptions to the "ultimate fact in issue" rule recognized in the Commonwealth prior to enactment of this section shall remain in full force.

Virginia Code §8.01-401.3(B) abolished the "ultimate fact in issue rule" declaring "No expert ... shall be prohibited from expressing an ... opinion ... as to any matter of fact ... solely because that fact is the ultimate issue ..." However, the Virginia Supreme Court in *David Parker Enterprises, Inc. v. Templeton*, 251 Va 235, 467 S.E.2d 488 (1996), discussed *infra* at p. 18 of this article, without referring to Code §8.01-401.3(B), enacted three years prior, held expert testimony inadmissible since it invaded the province of the jury on a vital fact issue in the case.

3. **Virginia Code §8.01-401.3 does not abolish "The Missing Variable - Speculative Assumption Rule."**

The "missing variable" is the Achilles heel for the admissibility of accident reconstruction testimony. Accident reconstruction experts often use mathematical formulae to calculate factors which cause an auto crash - such as excessive speed. There are several standard formulae for calculating speed, as *see*, *Limpert, Motor Vehicle Accident Reconstruction and Cause Analysis*, Ch. 20, (4th ed., 1994). For example, one formula for calculating minimum speed before impact from skid marks left on a level road surface is:

Speed (mph) = The Square Root of (30 x the coefficient of friction x skid mark length).

The "variables" in this equation are (1) the coefficient of friction and, (2) the length of the skid marks, each of which can be measured at the crash scene. However, many times the investigating police officer forgets to measure the actual coefficient of friction on the day of the crash. Thus, the exact coefficient of friction becomes a "missing variable" in the standard formula for calculating speed. Therefore, an accident reconstructionist must base his calculations by using ("plugging in") an assumed coefficient of friction.

In *Brown v. Corbin*, 244 Va. 528, 423 S.E.2d 176 (1992), the accident reconstructionist did not know the exact coefficient of friction of the road surface on the day of the wreck, but instead, "estimated the friction on the surfaces on 'an August day'." The Supreme Court of Virginia found the accident reconstructionist's testimony inadmissible holding:

His opinion, therefore, was nothing more than speculation, and the trial court abused

its discretion when it allowed Chewning to present that speculation to the jury as scientifically accurate opinion. (citation omitted).

In *Swiney v. Overby*, 237 Va. 231, 377 S.E.2d 372 (1989), the accident reconstructionist used an assumed brake condition and an assumed speed to calculate "stopping distance." The Supreme Court in *Swiney* cited *Grasty v. Tanner*, 206 Va. 723, 146 S.E.2d 252 (1966), holding the expert's testimony inadmissible as violating the "missing variable rule."

In *Grasty*, the weight of the defendant's car was an important factor needed to calculate its speed at the time of impact. The Supreme Court of Virginia held the following were "missing variables" for the weight of the defendant's car, causing accident reconstruction testimony to be inadmissible as being based on speculation: (1) extra weight in the trunk; (2) the amount of gasoline in the tank; and (3) the weight of the 3 passengers.

On Nov. 3, 1995, the Supreme Court of Virginia decided *CSX Transp. v. Casale* (II), 250 Va. 359, 463 S.E.2d 445 (1995), a non-auto case, which affirmed "the missing variable speculative assumption rule." This decision held that an economist's projection of future lost earning capacity, based upon speculative assumptions, not in evidence, was reversible error.

The Supreme Court, in *Casale* (II), based its decision to exclude expert testimony on two pre-1993 accident reconstruction cases, including *Swiney v. Overby*. Similarly, on June 9, 1995, the Supreme Court, in *Tarmac Mid-Atlantic, Inc. v. Smiley Block Co.*, 250 Va. 161, 458 S.E.2d 462 (1995), cited *Swiney v. Overby* and *Grasty v. Tanner* as authority for excluding expert testimony based upon the "missing variable" rule. Accordingly, Virginia Code §8.01-401.3 has not abolished the "missing variable speculative assumption rule." It is alive and well, having received a third "shot in the arm" in 1996 by the Virginia Supreme Court in *Tittsworth v. Robinson*, 252 Va. 151, 475 S.E.2d 261 (1996), discussed *infra* at p. 18 of this article, where the Virginia Supreme Court in an automobile accident reconstruction case reaffirmed the "missing variable rule."

4. **Does §8.01-401.3(A) abolish the "Common Knowledge Rule"?**

Does Virginia Code §8.01-401.3(A) abolish the "common knowledge rule" prohibiting expert testimony which is within the common knowledge of the jury?

a. **New Standard - "Assist the Jury":** The "common knowledge rule" excludes expert

testimony on the theory that it is simply "not necessary." Under the rule, only expert testimony which is necessary for the jury to arrive at its decision is admissible.

Virginia Code §8.01-401.3(A) changed the standard for admissibility from "necessary" to "helpful" - "assisting [the jury] to understand the evidence or determine a fact in issue." Under the old common law, "necessary standard," expert testimony was not admissible unless it was required by the jury to understand subject matter outside their common knowledge.

- b. **Federal Rule of Evidence 702:** Virginia Code §8.01-401.3 is identical to Federal Rule of Evidence 702. The Virginia Supreme Court has often found the construction given to a federal rule of evidence "instructive" when interpreting an identical Virginia rule of evidence. *McMunn v. Tatum*, 237 Va. 558, 565, 379 S.E.2d 908, 911-912 (1989). Therefore, a review of the leading Fourth Circuit Court of Appeals decisions interpreting Fed. Rule Evid. 702 would be helpful in our analysis.
- c. **Fourth Circuit Court of Appeals Opinions Interpreting Federal Rule of Evidence 702:** In *Scott v. Sears and Roebuck & Co.*, 789 F.2d 1052 (4th Cir. 1986), the plaintiff fell on a broken curb breaking her leg. The broken curb was open and obvious. The plaintiff retained a "human factors expert" who gave the jury three reasons why she was distracted from seeing the broken curb. Two of the reasons were held to be within the common knowledge of the jurors. The Fourth Circuit Court of Appeals held that this testimony was not admissible and overturned the judgment for the plaintiff holding:

Rule 702 provides that expert testimony may be admitted if it will 'assist the trier of fact to understand the evidence or to determine a fact at issue.' The question whether such assistance will be provided is within the sound discretion of the district judge.

Though we would normally defer to the exercise of the district court of its judgment, Rule 702 makes inadmissible expert testimony as to a matter which obviously is within the common knowledge of the jurors because such testimony, almost by definition, can be of no assistance.

*Id.* at 1055 (emphasis added) (citation omitted).

In *Persinger v. Norfolk & Western RY. Co.*, 920 F.2d 1185 (4th Cir. 1990), the plaintiff was a railroad electrician who was injured while installing a 75-pound starter

motor in a diesel locomotive. In order to prove negligence in this FELA action, the plaintiff called a "human factors expert" who testified that the 75-pound motor was too heavy to be lifted safely from a seated position which was the railroad's long-standing procedure to remove and replace starter engines.

The Fourth Circuit Court of Appeals held that the "human factors expert's" testimony was not admissible since "when stripped of its technical gloss ... Dr. Kroemer's testimony did no more than state the obvious ... the typical juror knows that it is more difficult to lift objects from a seated position, especially when the lift is away from the body rather than close to the body ... " Citing *Scott v. Sears, Roebuck & Co.*, the Fourth Circuit Court of Appeals held at 920 F.2d 1185, 1188, that "Rule 702 excludes expert testimony on matters within the common knowledge of jurors."

In the *Scott* and *Persinger* decisions the Fourth Circuit equates the "assist the trier of fact" standard of Fed. Rule Evid. 702 with the old "common knowledge rule" which had been followed by the Virginia Supreme court for more than 40 years.

After *Scott* and *Persinger* (both non-auto decisions), the Fourth Circuit decided in an auto accident reconstruction case, *Sparks v. Gilley Trucking Co., Inc.*, 992 F.2d 50 (4th Cir. 1993), that accident reconstruction testimony on speed *is* admissible since it assists the jury.

Milton Sparks crashed his red corvette alleging that Gilley's truck ran him off a mountain road into a tree. The truck driver defended alleging that the plaintiff, Sparks, was speeding, and as a result lost control of his red corvette. The trucking company called the investigating officer as an expert witness. The police officer testified, "Immediately prior to the accident, Sparks' speed [was] at 70 m.p.h." The officer based his estimate of Sparks' speed on the following facts in evidence: (1) the skid marks, their length and direction; (2) the condition of Sparks' red corvette after impact; (3) the condition of the tree after impact; and (4) his observation of the highway surface to determine the coefficient of friction.

As noted, the standard formula for calculating speed is:

Speed (mph) = The Square Root of (30 x the coefficient of friction x skid mark length).

The officer "did not measure the friction of the highway before applying a coefficient of friction to the length of the skid marks

when estimating Sparks' speed."

Sparks argued that the officer's opinion as to his speed was inadmissible since the officer's calculations did not include the actual coefficient of friction of the highway surface. According to Sparks, the actual coefficient of friction was a "missing variable" causing the officer's testimony to be based upon a speculative factual assumption not in evidence.

The Fourth Circuit Court of Appeals, in a far-reaching decision, held that accident reconstruction testimony as to speed is admissible since it would assist the jury in deciding whether Sparks was in fact speeding before he crashed. The Court specifically held at 992 F.2d 50, 53-54:

Expert witnesses may testify whenever special knowledge will assist the trier of fact. Fed. R. Evid. 702 ... See *Persinger v. Norfolk & W. RY.*, 920 F.2d 1185, 1187 (4th Cir. 1990). Here, the district court concluded that expert testimony would help the jury evaluate the physical evidence and consider how fast Sparks was driving.

...

Sparks is correct in noting that a court may refuse to allow a generally qualified expert to testify if his factual assumptions are not supported by the evidence. In this case, however, the objection raised relates more to how Officer Doster formed his opinion than to the facts upon which it is based ... Whether he [Officer Doster] properly performed tests [the coefficient of friction of the highway] goes more to the weight to be attached to his opinion than to its admissibility ... The proper methods of addressing the perceived shortcomings in Officer Doster's technique were cross-examination and the presentation of rebutting expert testimony and Sparks availed himself of both methods.

*Id.* at 53-54 (emphasis added) (Citation omitted).

The Sparks case is contrary to more than 40 years of Virginia Supreme Court decisions on the admissibility of accident reconstruction testimony. How can they be reconciled? An argument for reconciliation can be that *Sparks*, the only accident reconstruction case decided by the Fourth Circuit, was based upon Fed. Rule Evid. 702, whereas the prior Virginia Supreme Court decisions were not. However, as discussed *infra* at p. 18 of this article, the

Virginia Supreme Court in *Tittsworth v. Robinson*, a 1996 automobile accident reconstruction case, emphasized that notwithstanding the enactment of Code §8.01-401.3, it will strictly adhere to the rule that expert testimony to be admissible cannot be speculative and must take into account all necessary variables.

On July 8, 1994, the Fourth Circuit Court of Appeals, in a non-auto case, *Tyger Constr. Co. v. Pensacola Constr. Co.*, 29 F.3d 137, cert. denied \_\_\_ US \_\_\_, 115 S.Ct. 709 (1995), without referring to the *Sparks* decision, weakened the basis for its holding by stating:

It was an abuse of discretion for the trial court to admit McCoy's testimony that the delays in construction were caused by a lack of, or inefficiencies in, the production of sand. This error resulted from the trial judge's belief ... that the question of whether an expert's opinion had an adequate basis in fact should be handled by opposing counsel through cross-examination and in jury argument ... Expert opinion evidence based upon assumptions not supported by the record should be excluded.

*Id.* at 143 (emphasis added) (citation omitted).

The Supreme Court of Virginia cited *Tyger Constr. Co.* with approval on Nov. 3, 1995 in *CSX Transp. v. Casale* (II) discussed *supra* at p. 14 of this article, in affirming the missing variable speculative assumption rule.

#### 5. Virginia Supreme Court decisions *after* July 1, 1993:

The Virginia Supreme Court has decided one auto case and four non-auto cases involving the admissibility of accident reconstruction testimony after the effective date of Virginia Code §8.01-401.3. An analysis of these five cases suggests that the Supreme Court is not likely to change its prior position, as stated in *Brown v. Corbin*, 244 Va. 528, 423 S.E.2d 176 (1992) that: "accident reconstruction expert testimony is rarely admissible in Virginia."

First, in *Board of Supvrs. v. Lake Services, Inc.*, 247 Va. 293, 297, 440 S.E.2d 600, 602 (1994), the Supreme Court, without making any reference to Virginia Code §8.01-401.3 held:

Expert testimony is inadmissible regarding 'matters of common knowledge' on subjects 'such that [jurors] of ordinary intelligence are capable of

comprehending them, forming an intelligent opinion about them, and drawing their own conclusions therefrom' ... Further, expert testimony is admissible only when specialized skill and knowledge are required to evaluate the merits of a claim.

(emphasis added) (citation omitted)

Second, in *Holcombe v. NationsBanc Fin. Servs.*, 248 Va. 445, 448, 450 S.E.2d 158, 160 (1994), in a footnote, the Supreme Court referred to the "assist the trier of fact" standard of new Code §8.01-401.3(A). However, in the same footnote, the Court cited with approval the old "common knowledge rule" found in *Grasty v. Tanner*, stating:

The defendant suggests on brief that the plaintiff should have produced expert evidence to show the partitions were prone to fall when stored straight or at any given angle. However, when as here, the issue to be decided involves matters of common knowledge as those as to which the jury are as competent to form an intelligent and accurate opinion as the [expert] witness, 'expert evidence is inadmissible. *Grasty v. Tanner*, 206 Va. 723, 726, 146 S.E.2d 250, 252, 254 (1966). See also Code §8.01-401.3(A) (permitting expert testimony when such testimony 'will assist the trier of fact to understand the evidence or to determine the fact in issue.')

The footnote from *Holcombe v. NationsBanc* shed some light on how the Supreme Court of Virginia will decide whether Code §8.01-401.3 has abolished the "common knowledge rule." The Court cites the statute and equates the new "assist the trier of fact" standard with its pre-1993 decision of *Grasty v. Tanner*, setting forth the old common law "common knowledge rule." The Court, in this footnote, seems to be saying that if expert testimony is within the common knowledge of the jurors, it is of no assistance and is therefore inadmissible. This small insight into the current thinking of the Virginia Supreme Court suggests that the Court will hold that Code §8.01-401.3 does not change the "common knowledge rule."

Third, in *Tarmac Mid-Atlantic, Inc. v. Smiley Block Company*, 250 Va. 161, 458 S.E.2d 462 (1995), a non-auto case, the Virginia Supreme Court provided greater insight into its current thinking on the admissibility of accident reconstruction testimony. The facts of the *Tarmac Mid-*

*Atlantic* case are simple. Tarmac Mid-Atlantic sued Smiley Block Co. for defective slag used by Tarmac to manufacture concrete masonry block. Tarmac's expert chemist examined samples of the slag. The test samples were not obtained directly from the defendant, as the chemist would have preferred, but from the slag Tarmac had purchased from the defendant, which had been stored in open bins at Tarmac's plant.

Tarmac's chemist found that the defendant's slag contained high levels of magnesium, which caused "pop-outs" in Tarmac's finished masonry block. The chemist concluded that the defendant's slag was the only source of magnesium. The trial court excluded the chemist's testimony on the ground of inadequate and speculative foundation, since the samples analyzed "had been exposed to many sources of contamination while they were out of Smiley's possession and control."

The Supreme Court overturned the trial court's decision because the evidence showed, "the slag was essentially the same at the time of its shipment and at the time of the expert's testing." The Supreme Court, in *Tarmac*, cited the *Brown v. Corbin* decision as authority on the admissibility of expert testimony. The quote from *Brown v. Corbin* that the Supreme Court relied upon in *Tarmac* comes from the very paragraph of the *Corbin* decision which put the "nail in the coffin" to the general admissibility of accident reconstruction testimony. The full paragraph from *Brown v. Corbin* to which the *Tarmac* Court cited, reads:

Next, we consider whether the trial court properly admitted the testimony of Corbin's witness, Stephen B. Chewning, as an expert in the field of accident reconstruction. The admission of expert testimony is committed to the sound discretion of the trial judge, and we will reverse a trial court's decision only where that court has abused its discretion. Nonetheless, expert testimony is inadmissible on any subject which the ordinary lay person of average intelligence is equally capable of reaching his or her own conclusion. See *Lopez v. Dobson*, 240 Va. 421, 423, 397 S.E.2d 863, 865 (1990). Furthermore, this Court repeatedly had held that, applying that standard, accident reconstruction expert testimony is rarely admissible in Virginia because it invades the province of the jury. See *Grasty v.*

*Tanner*, 206 Va. 723, 726-27, 146 S.E.2d 252, 254-55 (1966); *Venable v. Stockner*, 200 Va. 900, 904-05, 108 S.E.2d 380, 383-84 (1950). We specifically have excluded expert testimony as to the speed of vehicles. See *Thorpe v. Commonwealth*, 223 Va. 609, 614, 292 S.E.2d 323, 326 (1982); *Grasty*, 206 Va. at 726-27, 146 S.E.2d at 254-55.

*Brown v. Corbin*, 244 Va. at 531-32, 423 S.E.2d at 178-79.

By quoting, with approval, from the same paragraph of *Brown v. Corbin*, which stated, "... accident reconstruction expert testimony is rarely admissible in Virginia ...," the Court has telegraphed that it will likely rule that the enactment of §8.01-401.3 has not changed the rule of *Brown v. Corbin*.

Fourth, in *David Parker Enterprises, Inc. v. Templeton*, 251 Va. 235, 467 S.E.2d 488 (1996), the Virginia Supreme Court reinforced its position, before the enactment of Code §8.01-401.3 that "accident reconstruction testimony is rarely admissible in Virginia."

In *Templeton*, the plaintiff was injured in the waters off Virginia Beach after he had fallen off a jet ski rented from the defendant. Templeton received "slice-type" lacerations to his thigh and knee from the propeller of the defendant's boat when the defendant tried to assist Templeton out of the water.

The key issue in the case was whether the defendant's boat was in gear or in neutral (drifting). If the boat were in gear, the defendant would be negligent. The factual issue was whether the boat's propeller was rotating when the plaintiff was injured. A rotating propeller implied that the engine was in gear.

The Court summarized the plaintiff's treating doctor's testimony, stating "Templeton's injuries were caused by 'a propeller' (that was) in motion." "This testimony supported Templeton's theory that Benzel was negligent in maneuvering the boat close to Templeton while the boat's engine was in gear."

The Supreme Court held this expert testimony inadmissible, stating:

In the present case, it was appropriate for the doctors to testify that Templeton's wounds were inflicted by a sharp object because evidence about the type of injuries Templeton sustained was relevant and probative. However, the evidence was in sharp conflict about whether the propeller

was rotating in gear when Templeton was injured, and the doctor's opinion that the boat's propeller was so rotating clearly invaded the province of the jury on this vital issue because the jury was equally as capable as were the doctors of reaching an intelligent and informed opinion and of drawing its own conclusion from the facts and circumstances of the case. Moreover, the testimony was highly prejudicial.

*Id.* at 237-38, 467 S.E.2d at 490.

Virginia Code §8.01-401.3 directly on point, was not mentioned in the majority opinion. However, Justices Keenan and Lacy, in their dissent, found the expert testimony "was not within the range of common knowledge, did not invade the province of the jury, and was admissible evidence under Code §8.01-401.3(B)." The Court in *Templeton* upheld the pre-§8.01-401.3 "common knowledge rule," citing the leading case against the admissibility of accident reconstruction testimony - *Grasty v. Tanner*. In addition, the Court failed to consider the explicit language of Code §8.01-401.3(B) abolishing the "ultimate fact in issue rule" holding that expert testimony which stated the cause of the plaintiff's injury (the rotating propeller) invaded the province of the jury.

Finally, on Sept. 13, 1996, the Virginia Supreme Court decided *Tittsworth v. Robinson*, 252 Va. 151, 475 S.E.2d 261 (1996), the first auto accident reconstruction case decided after the enactment of Code §8.01-401.3.

In *Tittsworth*, the plaintiff was in a stopped van and was struck in the rear by the defendant's vehicle. The defendant presented two expert witnesses in an effort to show that the collision in question could not have caused the plaintiff's injuries. One of the expert witnesses, Cipriani, was a mechanical engineer who relied upon photographs of the vehicles and crash test data on substantially similar cars and testified regarding the maximum force that was applied to the plaintiff's vehicle. The other expert, Dr. Abbrecht, an expert in biomedical engineering and biomechanics, testified that the force of the accident was not enough to cause any injury and specifically, the plaintiff's disc herniation.

Although the Court cited the test for the admissibility of expert testimony to be the new "assist the jury" standard set forth in Code §8.01-401.3, it reversed the trial court because the accident reconstruction expert



testimony was based upon speculative assumptions and missing variables, which resulted in a reconstruction of the accident which was not "substantially similar" to the actual collision. As stated by the Court:

While Code §§8.01-401.1 and -401.3 have liberalized the admissibility of expert testimony, we think the expert's testimony here fails to meet the fundamental requirements enumerated above. With respect to Cipriani, there was no showing that the crash tests relied upon were conducted under conditions similar to those existing at the accident scene. More importantly, Cipriani never examined the vehicles involved in the collision; rather, he relied solely upon the photographs of the vehicles to determine the permanent crush damage thereto. He did not know whether the undercarriages of the vehicles had been damaged, and, if so, the extent thereof. Indeed, Cipriani simply assumed that each vehicle sustained a crush damage of one-half an inch.

Abbrecht relied, in part, upon Cipriani's conclusion. He also relied upon the photographs of the vehicles and the rear end collision experiments. Again, there was no proof that these experiments were conducted under circumstances substantially similar to those existing at the accident scene. Moreover, the test focused upon neck injuries, not lumbar spine injuries, and Tittsworth sustained an injury to a disc in his lumbar spine.

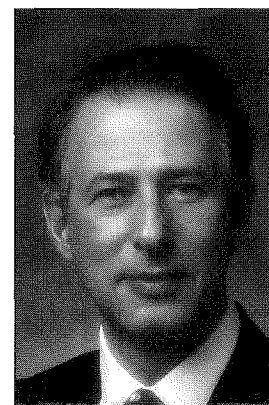
In sum, the challenged expert testimony is speculative, is founded upon assumptions lacking a sufficient factual basis, relies upon dissimilar tests, and contains too many disregarded variables. Consequently, we hold that the testimony is unreliable as a matter of law, and, therefore, the trial court erred in admitting it."

*Id.* at 155, 475 S.E.2d at 263-64.

Importantly, the Virginia Supreme Court did not cite *Sparks v. Gilley Trucking Co.*, the Fourth Circuit Court case allowing automobile accident reconstruction testimony but instead, relied upon case law decided prior to the enactment of Virginia Code §8.01-401.3.

### C. Conclusion

On July 1, 1993, the General Assembly enacted Code §8.01-401.3 in an effort to reverse more than 40 years of hostile Virginia Supreme Court decisions on the admissibility of accident reconstruction testimony as evidenced by the Supreme Court decision of *Brown v. Corbin*. An analysis of the five Virginia Supreme Court decisions decided after the enactment of Code §8.01-401.3 suggests that the rule of *Brown v. Corbin* is alive and well, and that "accident reconstruction expert testimony is rarely admissible in Virginia." It appears that the Virginia Supreme Court is still hostile towards accident reconstruction testimony and will continue to be so in the future.



This article, which originally appeared in the CLE materials from the 1996 VTLA Annual Convention, has been updated to include recent cases and analysis. The author would like to thank Michael Lantz of Emroch & Kilduff in Richmond for his assistance in editing this article and for his input regarding the *Tittsworth v. Robinson* case.

Gerald A. Schwartz practices exclusively personal injury law with the Law Offices of Gerald A. Schwartz in Alexandria. Mr. Schwartz is a former registered pharmacist, an organic chemist and a patent attorney. He received his undergraduate degree with honors from Northeastern University College of Pharmacy in Boston, and his J.D. degree from the Washington College of Law, The American University, in Washington, DC.

Mr. Schwartz is a member of the VTLA Board of Governors, and is the chairman of the CLE Committee. He is a frequent lecturer in the fields of tort law, medicine and auto insurance law. Mr. Schwartz has lectured at seminars sponsored by VTLA, as well as numerous other trial lawyer associations and bar groups.