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STATE OF CONNECTICUT *v.* ROBERT H. FURBUSH
(AC 29471)
(AC 31505)

Lavine, Beach and McDonald, Js.

Argued April 13—officially released October 4, 2011

(Appeal from Superior Court, judicial district of
Tolland, geographical area number nineteen,
Schuman, J.)

Benjamin B. Adams, with whom, on the brief, was
Hubert J. Santos, for the appellant (defendant).

Denise B. Smoker, senior assistant state's attorney,
with whom, on the brief, was *Matthew C. Gedansky*,
state's attorney, for the appellee (state).

Opinion

LAVINE, J. The defendant, Robert H. Furbush, appeals from the judgment of conviction, following a trial to the court, of manslaughter in the second degree with a motor vehicle in violation of General Statutes § 53a-56b, operating a motor vehicle while under the influence of intoxicating liquor in violation of General Statutes § 14-227a (a) (1) and operating a motor vehicle while having an elevated blood alcohol content in violation of General Statutes § 14-227a (a) (2).¹ On appeal, the defendant claims that (1) he is entitled to a new trial because the court did not provide him with a complete transcript of his trial for appellate review, (2) the court infringed on his constitutional right to counsel when it ordered his trial counsel to turn over copies of their trial notes in an effort to reconstruct missing transcript pages, (3) the court improperly denied his motion to exclude the testimony of the state's expert witnesses and (4) the evidence was insufficient to support his conviction of manslaughter in the second degree with a motor vehicle. The defendant also appealed from the judgment of the trial court denying his motion for a new trial. We disagree with the defendant, and, accordingly affirm the judgments of the trial court.

The following facts, which the trial court reasonably could have found, are relevant to the defendant's appeals. On September 2, 2003, the defendant visited a bar in Hebron. Over the course of his visit, the defendant became intoxicated from consuming alcoholic beverages and noticeably was slurring his words, stumbling around the bar and teetering on his bar stool. At one point, the defendant yelled out, "I need a line," which the bartender understood to mean that he wanted drugs. The bartender asked the defendant to leave, and two bar patrons, Jerry L. Patch and Paul Mahoney, assisted the defendant as he walked out to the parking lot. Patch and Mahoney asked the defendant for the keys to his truck and attempted to convince the defendant that they should drive him home. The defendant told Patch to "go f[uck] yourself. I can drive myself home."

The defendant "fell into [his] truck" as Patch and Mahoney attempted to find his keys. They told the defendant that they wanted to drive him home so he did not hurt anyone. The defendant still refused their assistance, and Patch and Mahoney became concerned for their own safety because the defendant was becoming violent. They eventually abandoned their plans to convince the defendant that he should not drive home and, just prior to 10 p.m., the defendant left the bar in his pickup truck.

On his way home from the bar, the defendant was traveling southbound on Route 85 in Hebron when his vehicle collided with the front driver's side of the vehicle driven by George Koch in the northbound lane of

Route 85. Koch was pronounced dead at the scene of the accident, and the defendant was removed from his truck and taken to a hospital. The firefighter who assisted with the removal of the defendant from his truck noticed a strong odor of alcohol emanating from the defendant. The defendant's blood alcohol level was later tested at 0.248 while he was at the hospital.

The defendant was charged with manslaughter in the first degree, manslaughter in the second degree with a motor vehicle and two counts of operating a motor vehicle while under the influence of alcohol. He elected a trial to the court. During the trial, the state presented the testimony of two accident reconstructionists, Michael Mathieu and James Foley, to explain how the collision between the defendant's truck and Koch's vehicle had occurred. Both experts testified that the defendant's truck had crossed the center yellow line of Route 85 and struck Koch's vehicle in the northbound travel lane. They also testified that, pursuant to the principles of dynamics and the law of motion, the collision could not have occurred in the southbound lane. Mathieu and Foley also relied on a gouge mark that was in the northbound lane of the road, which they concluded had been made by the rim of the front driver's side tire of Koch's vehicle when the defendant's truck drove over the front fender of Koch's vehicle.

The defendant called his own expert, Richard Montefusco, to testify that Mathieu and Foley deviated from the standard protocols and commonly accepted techniques in their field. Montefusco also testified that the gouge mark relied on by Mathieu and Foley could not be a gouge mark and instead concluded that it was a scrape mark caused by Koch's vehicle. Finally, Montefusco testified that his conclusions were based on an assumption that the two vehicles were traveling at forty miles per hour at the time of collision.

On September 25, 2007, the court found the defendant guilty of manslaughter in the second degree with a motor vehicle and two counts of operating a motor vehicle while under the influence of alcohol. As to the two counts of operating a motor vehicle under the influence, the court concluded that "[t]here was evidence that the defendant was drinking . . . perhaps from the afternoon, certainly in the evening of September 2, 2003, and drinking excessively. When he was found in the car after the accident . . . there was a smell of alcohol that the trooper noticed. His eyes were bloodshot. . . . His behavior was belligerent and consistent with that of a person under the influence. He did admit to drinking. There were beer cans strewn all over the scene. That's more than sufficient evidence to conclude beyond a reasonable doubt that he was under the influence. . . . I'm convinced beyond a reasonable doubt that the defendant's blood alcohol content was greater than 0.08 at the time of operation"

The court then explained its reasoning for finding the defendant guilty of manslaughter in the second degree with a motor vehicle. It stated that “the gouge mark in the road was the key piece of evidence. . . . Once you conclude that the gouge mark was made by the inside of the left wheel rim of [Koch’s vehicle], the rest of the evidence falls in place. The gouge mark was roughly in the center of the northbound lane several feet from where the yellow line would be if it continued in that area. And for the left front wheel of Mr. Koch’s vehicle to make that tire mark, it had to be in its proper lane. And for the defendant’s vehicle to collide with the left front of [Koch’s] vehicle at that point, the defendant’s vehicle had to be in the northbound lane, which was improper. . . .

“In addition to the physical evidence at the scene, the evidence of the defendant’s intoxication at the time makes it much more likely that the defendant was not driving in the proper lane. . . . Basically, at that very high level of intoxication, you are not driving the car; the car is driving you. So, I believe that alcohol is a supporting reason for the conclusion that the defendant was in the improper lane. It is also an explanation for why he was in the improper lane. He was in the improper lane . . . as a consequence of the effect of alcohol.”

Finally, the court stated that it considered Montefusco’s testimony but did not find his expert opinions to be persuasive. Specifically, the court concluded that Montefusco’s opinions were based on an assumption that the two vehicles were traveling approximately forty miles per hour at the time of the collision, yet there was no evidence that this was their actual speed.

The court sentenced the defendant to an effective term of ten years imprisonment, suspended after nine years, and four years of probation. These appeals followed. Additional facts will be set forth as necessary.

I

The defendant first claims that the court improperly denied his motion for a new trial. Specifically, the defendant argues that he is entitled to a new trial because “only a verbatim account of the questions, answers and arguments concerning the introduction of expert testimony [on September 12, 2007] can effectively” preserve his issues on appeal. We disagree.

The following additional facts are relevant to our resolution of the defendant’s claim. On December 10, 2007, the defendant appealed from the judgment of conviction. On July 29, 2008, the office of the official court reporter for the judicial district of Tolland sent the defendant a letter notifying him that that there was no audio recording of the proceedings on September 12, 2007, and, therefore, the office could not produce a transcript for that date.

On August 7, 2008, the defendant filed a motion for a new trial and for rectification, arguing that the missing transcript pages would deny him the right to a meaningful appeal. Before ruling on the defendant's motions, the court first attempted to reconstruct the missing transcript from September 12, 2007, by ordering the state police to examine any computer that might have a recording of that day's testimony and also ordered both parties to preserve their notes of the testimony. The court also told the parties that it was able to produce a thirty-nine page printout of the court reporter's notes from September 12, 2007.

On December 22, 2009, the court suggested that the defendant and the state combine their notes from September 12, 2007, with the court reporter's notes to attempt to put together a transcript. The defendant requested, instead, that the state unilaterally prepare a transcript, giving the defendant an opportunity to review it when it was complete.

The state reconstructed the transcript by utilizing the court reporter's shorthand notes, computerized shorthand notes, its own notes, the defendant's notes, the clerk's log book and the exhibits. On July 23, 2009, the court granted the defendant's motion for rectification, stating that it was "rectifying the record by accepting the proposed transcript [submitted by the state] with the modifications as the transcript of the proceedings [from September 12, 2007]." The defendant objected to the use of the reconstructed transcript because on September 12, 2007, both experts for the state testified, and it was "technically dense material that was gone over by both experts, and . . . there were several portions of the reconstructed transcript that highlighted just how difficult it was to say exactly what it was that [the experts] were saying about their conclusions." The defendant, therefore, requested that he be given a new trial to correct this deficiency in the record.

The court denied the defendant's motion for a new trial. The court noted that it "spent many hours comparing the proposed transcript submitted by the state with the underlying sources and [was] confident that it is faithful to them," and that "the lack of the transcript alone is insufficient to establish an inadequately reconstructed record" The court also responded to the defendant's concerns about the expert testimony by Mathieu and Foley, stating that "it's also relevant . . . that defense counsel on appeal is the same as trial counsel. And, I think, as the state was also saying . . . that this day's proceeding adequately preserves whatever arguments the defendant wishes to raise on appeal. Granted, the proposed transcript is not a 100 percent verbatim recording of the day's proceedings, but I think it preserves all of the defendant's objections, the court's rulings, and the critical parts of the witnesses' testimony Issues such as qualifications of the witnesses are

either adequately preserved by this testimony or fully preserved by the previous day's testimony of Mr. Mathieu. Issues such as the basis of the witness' opinion as to the cause of the gouge mark . . . are also fully preserved by the previous day's testimony or adequately preserved by the reconstructed transcript"

The defendant now claims that because his appeal is solely based on the evidence presented by the state's experts, the court improperly denied his motion for a new trial. The defendant claims that he is not looking for a per se rule that a new trial is required in every case where a complete transcript is not provided. He argues, instead, that a new trial is required in this case because the issues presented on appeal are entirely dependent on the reconstructed transcript pages.

"The absence of a portion of the trial transcript does not mandate a new trial. A new trial is required only if the proceedings cannot be sufficiently reconstructed to allow effective appellate review of the claims raised by the defendant. . . . [T]he state is not required to furnish a complete verbatim transcript. . . . Possible substitutes include [a] statement of facts agreed to by both sides, [or] a full narrative statement based perhaps on the trial judge's minutes taken during trial or on the court reporter's untranscribed notes" (Citations omitted; internal quotation marks omitted.) *State v. Williams*, 227 Conn. 101, 105–106, 629 A.2d 402 (1993).

"The sufficiency of a transcript to enable the appellate courts to review the issues on appeal is a matter of fact, because the trial court is in the best position to determine whether the reconstructed record adequately reflects what occurred at the trial. An appellate court should affirm a trial court's finding that the reconstructed record was sufficient unless the appellate court finds that the trial court's determination was 'clearly erroneous.' . . . In determining whether a reconstructed record is sufficient, the trial court considers various factors, including the nature of the case, the claim of error advanced by the defendant, the availability of witnesses and exhibits from the original trial, the length of time that has passed, the length of the missing portion of the record and whether the defendant is represented by different counsel on appeal." (Citation omitted.) *Id.*, 106.

The defendant's claims on appeal relating to the testimony of the state's expert witnesses are (1) that the court improperly denied his motion to exclude the testimony of the expert witnesses and (2) that the evidence was insufficient to support his conviction of manslaughter in the second degree with a motor vehicle. We conclude that the record before us, which includes the reconstructed transcript from September 12, 2007, is sufficient to "allow effective appellate review of the claims raised by the defendant." (Internal quotation marks omitted.) *Id.*, 105.

In addition to testifying on September 12, 2007, Mathieu also testified on September 11, 2007, and Foley also testified on September 14, 2007, meaning that their testimony was not entirely lost. On September 11, 2007, Mathieu testified as to his training and experience in accident reconstruction, the evidence and methods he relied on to reach the conclusion that the defendant's truck crossed the yellow line on Route 85 and how certain marks in the road were created by the two vehicles. On September 14, 2007, Foley testified concerning the methods he relied on to conclude that the collision occurred in the northbound lane and could not have occurred in the southbound lane and what, in his opinion, caused the gouge mark in the northbound lane. Also, Mathieu's expert report was in evidence as an exhibit, thereby preserving some of his findings and conclusions. Concerning the testimony that was lost, as noted by the court, the reconstructed transcript is sufficient to address the issues of Mathieu's and Foley's qualifications and their opinions concerning the cause of the gouge mark.

We also note that the transcript for September 12, 2007, was reconstructed from various sources rather than strictly from memory or any other unreliable source. The state utilized the court reporter's shorthand notes, computerized shorthand notes, its own notes, the defendant's notes, the clerk's log book and the exhibits. The process of reconstruction took approximately fifty hours to complete and resulted in a transcript of seventy-one pages. Finally, the defendant's appellate counsel also represented the defendant during trial.

The defendant argues that *United States v. Workcuff*, 422 F.2d 700 (D.C. Cir. 1970), should guide our decision on this claim because none of the cases in Connecticut address reconstruction of the record when the missing portions of the record directly relate to the issues raised on appeal. We conclude, however, that *Workcuff* is not helpful to our resolution of the defendant's claim because it is factually distinct from the case before us in significant ways.

In *Workcuff*, the court charged the jury with additional instructions without a court reporter present. *Id.*, 701. Neither the government nor the defendant's counsel had any recollection of the contents of the additional instruction, and neither could state with assurance whether defense counsel made any objection to it. *Id.* The only written evidence of the instruction were notes taken by the government which were "apparently taken in an arcane, highly personalized form of shorthand, and consist[ed] primarily of illegible scrawls." *Id.* The court reversed the defendant's conviction, concluding that "[i]t is difficult enough in normal circumstances to appraise the propriety of the trial court's various actions on the basis of a cold printed

record; when that record is replaced by the incomplete hearsay recollections of one of the parties, our review is turned into an exercise in creative imagination.” *Id.*, 702. The court also noted that the problems associated with the incomplete record were greatly exacerbated because the attorney representing the defendant was different from the counsel who represented him at trial. *Id.*

In the present case, the state reconstructed the record from several sources, including notes created by the court reporter, defense counsel and the exhibits in evidence, rather than from the “incomplete hearsay recollections of one of the parties” *Id.* Additionally, the defendant’s appellate counsel also served as his counsel during trial.

We conclude that it was not clearly erroneous for the court to conclude that the reconstructed record was sufficient to allow for effective appellate review of the claims raised by the defendant. Accordingly, the court properly denied the defendant’s motion for a new trial.

II

The defendant next claims that the court infringed upon his constitutional right to counsel when it ordered defense counsel to turn over copies of their notes in an effort to reconstruct the missing transcript from September 12, 2007.² While we appreciate that defense counsel understandably objects to any ruling that might disrupt their confidential relationship with a client, we conclude that no such disruption occurred in this case. Accordingly, we reject the defendant’s claim.

The following additional facts are relevant to the defendant’s second claim. On October 22, 2008, the state suggested to the court that the missing transcript from September 12, 2007, could be reconstructed from, among other things, notes from the attorneys representing the two parties. Defense counsel objected to any order requiring them to turn over their notes. The court ordered both parties to preserve their notes and asked defense counsel to show cause or file a protective order concerning their claim that they should not be obligated to produce their trial notes.

On November 6, 2008, the defendant filed a motion for a protective order, arguing that the disclosure of defense counsels’ notes would deny him his constitutional right to counsel and violate the attorney work product doctrine and defense counsels’ ethical obligations. On December 22, 2008, the court denied the defendant’s motion. The court concluded that “no one here is seeking any editorial comments or notes of communication with the client. . . . [W]hat I do think is appropriate for the defendant to turn over are his notes of the testimony, which was heard in court, was essentially information available to the public. . . . [D]efense

counsel's notes of the testimony really involves very minimal attorney work in the sense that there are no real mental impressions. It's essentially a clerical task that is being performed. . . .

"I would also add that there are no readily available substitutes or at least no easy way of reconstructing this transcript without the notes of counsel and the court reporter who were in court . . . and, finally, I think this is for the defendant's benefit. It's an attempt to re-create the record so that the defendant can make a meaningful appeal, and so that factors into the work product decision. . . . I'm going to order that defense counsel type up in good faith [their] notes and turn those over to the court and to the state"

The defendant first claims that "the trial court's order that [he] turn over trial counsel's notes effectively compelled him to participate in the reconstruction of the record, and as such, significantly interfered with his right to counsel under the sixth and fourteenth amendments to the federal constitution" ³ He further argues that the "right to the effective assistance of counsel extends through the first appeal ⁴ [and] requires that defense counsel both hold the state to its burden of proof beyond a reasonable doubt and not perform deficiently so as to prejudice the defense. . . . Thus, defense counsel should not be forced into the untenable position of either agreeing to a stipulation of facts that may minimize the state's burden of providing a complete record, or to providing trial notes that work to his detriment by inaccurately reconstructing the proceeding." (Citations omitted; internal quotation marks omitted.)

We find the defendant's argument unpersuasive and conclude that the court's order requiring defense counsel to provide the state and the court with copies of their trial notes from September 12, 2007, did not violate the defendant's right to counsel. First, the defendant was not "forced" to accept the reconstructed transcript as fact. The court simply ordered the parties to submit not their actual notes, but an edited, typed summary of their notes concerning the actual testimony from September 12, 2007, with any comments concerning their impressions or strategy redacted. The defendant objected to the state's reconstructed transcript on July 23, 2009, and has appealed from the court's denial of his motion for a new trial. The defendant's course of conduct indicates that he did not construe the court's order as forcing him to accept the reconstructed transcript as part of the record. The defendant also has not pointed to anything in the record that suggests that the court was, in fact, forcing him to accept the transcript.

Second, we do not believe that by supplying an edited and typed summary of their notes from September 12, 2007, defense counsel was prejudicing the defendant by inaccurately reconstructing the proceeding. ⁵ The

court's order requiring that defense counsel provide a summary of their notes to the state benefited the defendant because it provided for a more accurate and fair reconstruction of the record that the defendant could utilize on appeal. Furthermore, we already have concluded that the reconstructed record is adequate for the review of the claims raised by the defendant. See part I of this opinion. The defendant, therefore, has not suffered any actual prejudice from defense counsels' compliance with the court order.

The defendant argues alternatively that his sixth amendment rights were violated because the court order was in violation of the attorney work product doctrine. The defendant cites a Superior Court case, *State v. Weber*, 49 Conn. Sup. 530, 896 A.2d 153 (2004), for the proposition that the work product doctrine should have prohibited disclosure of the notes because "disclosure would likely cause prejudice or injury to the ongoing relationship between the defendant and his counsel, thereby diminishing his sixth amendment right"

We conclude that *Weber* is not helpful to the defendant's claim because that case involved the application of the attorney work product doctrine during pretrial discovery and does not stand for the proposition that the attorney work product doctrine applies when the court is attempting to reconstruct the record *after* trial.⁶ Additionally, the defendant has not explained how disclosing his edited notes would actually prejudice or injure his ongoing relationship with defense counsel.

We do not, and would not, sanction any action of a trial court that would interfere with the relationship between attorney and client. But given the facts and circumstances of this case, we conclude that no such interference occurred. Counsel was not required to provide evidence or information to his client's detriment, or anything inculpatory—merely summaries of redacted notes of testimony given in open court to assist the court in re-creating the record. We conclude, therefore, that the court did not violate the defendant's constitutional right to the effective assistance of counsel and that the court properly ordered the defendant to turn over defense counsels' edited, typed trial notes pertaining to the testimony given on September 12, 2007.

III

The defendant's third claim is that the court improperly denied his motion to exclude the opinion testimony of Mathieu and Foley. Specifically, the defendant claims that the methodology underlying Mathieu's and Foley's expert opinions was "exposed" to be unreliable, and, therefore, should have been excluded from evidence. We disagree and conclude that the court properly admitted Mathieu's and Foley's expert testimony.

The following additional facts are relevant to the

defendant's claim. On September 10, 2007, the defendant filed a motion in limine requesting that the court exclude "any and all of the accident reconstruction evidence that the defendant expects the state to offer in its case in chief." The defendant further claimed that the state would be unable to establish the scientific validity of the methodologies utilized by the state's reconstructionists under *State v. Porter*, 241 Conn. 57, 61–92, 698 A.2d 739 (1997) (en banc), cert. denied, 523 U.S. 1058, 118 S. Ct. 1384, 140 L. Ed. 2d 645 (1998), *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993), or *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 119 S. Ct. 1167, 143 L. Ed. 2d 238 (1999). The court decided that it would hear the testimony of the state's experts during the course of the trial but allow the defendant to file a motion to strike their testimony at the close of the state's case.

Mathieu and Foley testified at trial, and at the close of the state's case-in-chief the defendant moved for a judgment of acquittal. In support of the defendant's motion, defense counsel argued: "[Y]ou might recall that we had indicated that we would raise a *Porter* claim and a [*Kumho Tire Co., Ltd.*] claim [as] to the accident reconstructionists when . . . the state rested, and I'm doing that [W]hat we're focusing on . . . is the method; not that accident reconstruction is not an accepted technique, either scientific or otherwise, but the method that was used here by the accident reconstructionists in not determining speed of the vehicles either pre- or post- . . . collision" The court denied the defendant's motion, concluding that the "two experts testifying for the state have testified in their opinion that the defendant's car was on the wrong side of the yellow line. . . . There's been no showing at all that these opinions are not admissible under [*Kumho Tire Co., Ltd.*] or *Porter*"

After the defendant's case-in-chief, the defendant again moved for a judgment of acquittal and to strike Mathieu's and Foley's testimony. The defendant maintained his claim that "pursuant to *Porter* and *Daubert* and [*Kumho Tire Co., Ltd.*], the methods that were used by the [state's] reconstructionists are scientifically unreliable or unreliable in a nonscientific sense in that they never calculated speed" The state argued in opposition that *Porter* did not apply to Mathieu's and Foley's testimony because "[t]he subject of the testimony by the two experts . . . is no[t] new, novel science. In fact, all three experts in this area [including the defendant's expert] all stated that it was all based on physics that had been put forth centuries ago."

The court again denied the defendant's motion to strike the testimony, concluding that the state's experts testified that they relied on generally accepted principles of accident reconstruction and did so based on

principles and theories that have been in the recognized literature and taught at training schools for decades. This, the court concluded, was sufficient to establish that their testimony was reliable and that no *Porter* hearing was required. The court added that the defendant's expert, Montefusco, used methods similar to those used by the state's experts, except that he also considered the speed of the vehicles at the time of impact. The court, however, noted that Montefusco made an assumption about the speed of the vehicles and did not actually calculate the speed.

The defendant claims on appeal that the court improperly denied his motion to strike the testimony of the state's expert witnesses because their opinions were not scientifically valid. See *State v. Porter*, supra, 241 Conn. 57. In *Porter*, our Supreme Court concluded that the standard established in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, supra, 509 U.S. 579, should govern the admissibility of scientific evidence in Connecticut. *State v. Porter*, supra, 68. Under the *Daubert* standard, the determination of whether scientific evidence is admissible "entails a two part inquiry: whether the reasoning or methodology underlying the [scientific theory or technique in question] is scientifically valid and . . . whether that reasoning or methodology properly can be applied to the facts in issue. . . . In other words, before it may be admitted, the trial judge must find that the proffered scientific evidence is both reliable and relevant.

"More specifically, the first requirement for scientific evidence to be admissible . . . is that the subject of the testimony must be scientifically valid, meaning that it is scientific knowledge rooted in the methods and procedures of science . . . and is more than subjective belief or unsupported speculation. . . . This requirement establishes a standard of evidentiary reliability . . . as, [i]n a case involving scientific evidence, *evidentiary reliability* will be based upon *scientific validity*. . . . The second condition that scientific evidence must satisfy in order to be admissible . . . is that it must fit the case in which it is presented. . . . In other words, proposed scientific testimony must be demonstrably relevant to the facts of the particular case in which it is offered, and not simply be valid in the abstract." (Citations omitted; emphasis in original; internal quotation marks omitted.) *Id.*, 64–65.

The *Porter* court noted, however, that "some scientific principles have become so well established that an explicit *Daubert* analysis is not necessary for admission of evidence thereunder. . . . We do acknowledge . . . as did the Supreme Court in *Daubert*, that a very few scientific principles are so firmly established as to have attained the status of scientific law, such as the laws of thermodynamics, [and that such principles] properly are subject to judicial notice Evidence

derived from such principles would clearly withstand a *Daubert* analysis, and thus may be admitted simply on a showing of relevance. For example, the Supreme Court of Montana recently noted that a *Daubert* analysis would not be necessary for ordinary fingerprint identification evidence to be admissible.” (Citation omitted; internal quotation marks omitted.) *Id.*, 85 n.30.

Additionally, our Supreme Court later stated that “[a]lthough this court in *Porter* explicitly adopted the *Daubert* test to determine the admissibility of scientific evidence . . . we did not explicitly overrule Connecticut precedent regarding the evidence to which such a test should apply. Prior to *Porter*, this court had recognized that the *Frye* [*v. United States*, 293 F. 1013 (D.C. Cir. 1923)] test for admissibility should not apply to all expert testimony, but only to that which involves innovative scientific techniques In *Porter* we recognized that *Daubert’s* vagueness as to how and when to apply the factors of the test was necessary. . . . In order to maintain flexibility in applying the test, we did not define what constitutes scientific evidence.” (Citations omitted; internal quotation marks omitted.) *State v. Reid*, 254 Conn. 540, 546, 757 A.2d 482 (2000).

Notwithstanding this vagueness, we can resolve the defendant’s claim by determining whether Mathieu’s and Foley’s methods involve “innovative scientific techniques.”⁷ We conclude that they do not.

Mathieu testified that the techniques he learned concerning accident reconstruction are “generally accepted and used throughout the nation,” and that “it’s not new material” He stated that when he arrived at the scene of the collision, he performed an initial outlook that involved observing the road size and features and looking for any physical damage or evidence that could have come before or after the collision, such as tire marks and gouge marks. Mathieu also testified that he was able to identify which vehicles made the tire marks at the scene by tracing the marks to the final resting spots of the vehicles. From his observations, Mathieu testified that, in his opinion, the collision did not occur in the southbound lane because there was no physical evidence of preimpact collision marks, such as skid marks, in that lane.

Looking at the final resting places of the vehicles in a photograph of the scene of the collision, Foley testified that, in his opinion, the collision occurred in the northbound lane. He reached this conclusion by applying the “[p]rincipal direction of force and momentum, which is the mass or weight times speed or velocity.” He testified that the collision could not have occurred in the southbound lane because “[t]he vehicle dynamics don’t allow that.” Foley also testified that the gouge mark in the road was created by the Koch vehicle’s front rim because the defendant’s vehicle had a “greater height and momentum.”⁸

We conclude that there is nothing novel about the methods used by Mathieu and Foley to reconstruct the accident and reach their conclusions that the collision occurred in the northbound lane. They based their conclusions on visual inspections of the scene of the collision and photographs of the scene, and applied “principles and theories that have been in the recognized literature and have been taught at training academies for decades” to determine where the collision occurred and how certain marks in the road were created.⁹ The methods utilized by Mathieu and Foley provided “assistance to the [court] in viewing and evaluating the evidence.” (Internal quotation marks omitted.) *State v. Reid*, supra, 254 Conn. 547.

Furthermore, Montefusco used methods similar to those used by the state’s experts, and his main point of contention with Mathieu’s and Foley’s opinions rested on the fact that they did not calculate the speed of the two vehicles. This, Montefusco claimed, affected their ability to render an accurate opinion as to the point of impact of the two vehicles. Montefusco’s testimony raises a credibility question for the court rather than an issue concerning Mathieu’s and Foley’s qualifications to render expert opinions. See *State v. Porter*, supra, 241 Conn. 116–20. We conclude, therefore, that a *Porter* hearing was not required before Mathieu and Foley testified and that the court properly refused to strike their testimony.

IV

In his final claim, the defendant argues that the evidence is insufficient to sustain his conviction of manslaughter in the second degree with a motor vehicle. See General Statutes § 53a-56b. The defendant specifically claims that the evidence is insufficient because the court’s judgment rested on an erroneous factual finding that the opinions of his expert witness, Montefusco, were based on unsupported assumptions, which were contrary to the circumstantial evidence in the case. We conclude that there was sufficient evidence to sustain the defendant’s conviction of manslaughter in the second degree with a motor vehicle and that it was well within the court’s discretion to conclude that Montefusco’s opinions were unpersuasive.

“The standard of review employed in a sufficiency of the evidence claim is well settled. [W]e apply a two part test. First, we construe the evidence in the light most favorable to sustaining the verdict. Second, we determine whether upon the facts so construed and the inferences reasonably drawn therefrom the [finder of fact] reasonably could have concluded that the cumulative force of the evidence established guilt beyond a reasonable doubt. . . . In evaluating evidence, the [finder] of fact is not required to accept as dispositive those inferences that are consistent with the defen-

dant's innocence. . . . The [finder of fact] may draw whatever inferences from the evidence or facts established by the evidence it deems to be reasonable and logical. . . . On appeal, we do not ask whether there is a reasonable view of the evidence that would support a reasonable hypothesis of innocence. We ask, instead, whether there is a reasonable view of the evidence that supports the [finder of fact's] verdict of guilty." (Internal quotation marks omitted.) *State v. McGee*, 124 Conn. App. 261, 272, 4 A.3d 837, cert. denied, 299 Conn. 911, 10 A.3d 529 (2010).

Section 53a-56b (a) provides: "A person is guilty of manslaughter in the second degree with a motor vehicle when, while operating a motor vehicle under the influence of intoxicating liquor or any drug or both, he causes the death of another person as a consequence of the effect of such liquor or drug." At trial, the state "was required to prove beyond a reasonable doubt that the defendant (1) operated a motor vehicle (2) while under the influence of intoxicating liquor or any drug or both, (3) caused the death of another person and (4) that such death resulted as a consequence of the effect of such liquor or drug." *State v. Re*, 111 Conn. App. 466, 470, 959 A.2d 1044 (2008), cert. denied, 290 Conn. 908, 964 A.2d 543 (2009).

It is axiomatic that "the [trier of fact] must find every element proven beyond a reasonable doubt in order to find the defendant guilty of the charged offense, [but] each of the basic and inferred facts underlying those conclusions need not be proved beyond a reasonable doubt. . . . If it is reasonable and logical for the [trier] to conclude that a basic fact or an inferred fact is true, the [trier] is permitted to consider the fact proven and may consider it in combination with other proven facts in determining whether the cumulative effect of all the evidence proves the defendant guilty of all the elements of the crime charged beyond a reasonable doubt. . . . Moreover, it does not diminish the probative force of the evidence that it consists, in whole or in part, of evidence that is circumstantial rather than direct. . . . It is not one fact, but the cumulative impact of a multitude of facts which establishes guilt in a case involving substantial circumstantial evidence. . . . In evaluating evidence, the [trier] is not required to accept as dispositive those inferences that are consistent with the defendant's innocence. . . . The [trier] may draw whatever inferences from the evidence or facts established by the evidence it deems to be reasonable and logical. . . . Finally, [a]s we have often noted, proof beyond a reasonable doubt does not mean proof beyond all possible doubt . . . nor does proof beyond a reasonable doubt require acceptance of every hypothesis of innocence posed by the defendant that, had it been found credible by the [trier], would have resulted in an acquittal." (Internal quotation marks omitted.) *State v. Nazarian*, 125 Conn. App. 489, 495-96, 8 A.3d 562

(2010).

The state presented evidence that the defendant had consumed alcohol at a bar on September 2, 2003, drove his vehicle on Route 85 later that night and had a blood alcohol level of 0.248 after the collision. The state also presented the conclusions of Mathieu and Foley that the defendant's vehicle had crossed the double yellow line on Route 85 and struck Koch's vehicle, which was traveling in the northbound lane. Finally, the state presented evidence that Koch died as a result of the collision and that Koch's death was a consequence of the effect the liquor had on the defendant. In light of this evidence, the court reasonably could have concluded that the cumulative force of the evidence established guilt beyond a reasonable doubt.

Furthermore, the defendant's claim that the court improperly rejected the opinions of his expert witness is without merit. As noted, the court stated that it considered Montefusco's testimony in concluding that the defendant was guilty of manslaughter in the second degree with a motor vehicle but did not find his opinions to be persuasive. Specifically, the court concluded that Montefusco's opinions were based on an assumption that the two vehicles were traveling approximately forty miles per hour at the time of the collision, yet there was no evidence that this was what really happened.

“[I]n a case tried before a court, the trial judge is the sole arbiter of the credibility of the witnesses and the weight to be given specific testimony. . . . As such, the trial court is free to accept or reject, in whole or in part, the evidence presented by any witness, having the opportunity to observe the witnesses and gauge their credibility.” (Internal quotation marks omitted.) *State v. Miller*, 122 Conn. App. 631, 635, 999 A.2d 844 (2010). It was within the court's discretion to conclude that based on the testimony of Mathieu and Foley, the collision occurred in the northbound lane of Route 85, and, therefore, the defendant, who was operating his vehicle while he was under the influence of alcohol, caused the collision that resulted in the death of Koch. Additionally, it was proper for the court to conclude that Montefusco's testimony and his opinions were unpersuasive. We will not disturb the court's findings concerning credibility on appeal.

The judgments are affirmed.

In this opinion the other judges concurred.

¹ The defendant also appeals from the judgment of the court denying his motion for a new trial. On December 10, 2007, the defendant filed his appeal from the judgment of conviction. On September 17, 2009, the defendant appealed from the court's judgment denying his motion for a new trial. On February 2, 2010, this court, sua sponte, ordered that the defendant's two appeals be consolidated.

² The defendant also argues under this claim that the court order requiring defense counsel to turn over their trial notes was an “affront” to defense counsels' ethical obligations under rule 1.6 of the Rules of Professional Conduct. The defendant, however, does not indicate how this relates to his sixth amendment claim. Regardless, we conclude that disclosure of defense

counsel's trial notes from September 12, 2007, did not violate rule 1.6. Rule 1.6 (a) provides: "A lawyer shall not reveal information relating to representation of a client unless the client gives informed consent, the disclosure is impliedly authorized in order to carry out the representation, or the disclosure is permitted by subsection (b), (c), or (d)." Subsection (c) provides in relevant part: "A lawyer may reveal such information to the extent the lawyer reasonably believes necessary to . . . (4) [c]omply with other law or a court order." Pursuant to rule 1.6 (c) (4), therefore, defense counsel were permitted to disclose their notes to the extent necessary to comply with the court order.

³ "The sixth amendment to the United States constitution as applied to the states through the fourteenth amendment, and article first, § 8, of the Connecticut constitution, guarantee to a criminal defendant the right to effective assistance of counsel." (Internal quotation marks omitted.) *Anderson v. Commissioner of Correction*, 127 Conn. App. 538, 542, 15 A.3d 658, cert. granted on other grounds, 301 Conn. 921, 22 A.3d 1280 (2011).

⁴ "A criminal defendant's right to the effective assistance of counsel extends through the first appeal of right and is guaranteed by the sixth and fourteenth amendments to the United States constitution and by article first, § 8, of the Connecticut constitution." (Internal quotation marks omitted.) *Watson v. Commissioner of Correction*, 111 Conn. App. 160, 167, 958 A.2d 782, cert. denied, 290 Conn. 901, 962 A.2d 128 (2008).

⁵ Courts in this state previously have utilized trial notes from a defense attorney for the purposes of reconstructing an incomplete record. In *State v. Williams*, supra, 227 Conn. 101, for example, the defendant requested a copy of the transcript from his criminal trial and was notified that two tapes, containing the trial proceedings of the afternoon of October 31, 1989, were missing. *Id.*, 104. The court "conducted hearings in order to attempt to reconstruct the proceedings that were contained on the missing tapes. At the hearings, the witnesses who had testified on the afternoon of October 31, 1989, testified as to their recollection of the testimony they had given that afternoon. Notes taken by the court, counsel for both parties, the court monitor and other observers of the proceedings also became part of the reconstructed record." *Id.*, 104–105.

⁶ In *Weber*, the state had initiated a criminal proceeding against the defendant. *State v. Weber*, supra, 49 Conn. Sup. 530–31. The case eventually was dismissed, and the defendant sought to sue the state for false arrest and malicious prosecution. *Id.*, 531. The defendant requested files and records pertaining to the state's criminal investigation against him, and the state refused to disclose certain information pursuant to the attorney work product doctrine. *Id.*, 532.

⁷ Our research has revealed that the appellate courts in this state have not addressed the issue of whether *Porter* applies to testimony concerning accident reconstruction. The court in *Marsala v. Groomell*, Superior Court, judicial district of New Haven, Docket No. CV-96-025959-S (August 14, 2001), however, concluded that *Porter* did not apply to the testimony of the accident reconstructionist who testified in that case because his testimony did not involve scientific evidence. Instead, the testimony was based on the expert's opinions on the materials submitted to him and on his expertise as an accident reconstructionist.

⁸ Although Foley did not calculate the speed of the vehicles, he testified that it was clear from the photographs of the scene of the collision that Koch's vehicle had very little momentum prior to the collision.

⁹ Courts in other jurisdictions have noted that accident reconstruction utilizes the basic laws of physics. See, e.g., *Giard v. Darby*, 360 F. Sup. 2d 229, 236 (D. Mass. 2005) (engineering background and experience of accident reconstructionist "enabled him to apply basic physics to form his opinions in the case at bar"); *Fowler v. Bauman*, 663 So. 2d 438, 440 (La. App. 1995) (trial court properly admitted testimony of accident reconstructionist because testimony "was based on accident reconstruction principles which have been widely accepted by courts for many years," and his "opinions were based on 'the law of physics and engineering,' which we find is 'generally accepted in the scientific community'").