Neat v Pfeffer
2013 NY Slip Op 32207(U)
July 30, 2013
Supreme Court, New York County
Docket Number: 102244/11
Judge: Arlene P. Bluth

[* 1]

Comm 615

SUPREME COURT OF THE STATE OF NEW YORK
NEW YORK COUNTY

PRESENT: **HON. ARLENE P. BLUTH** Justice

PART 22

INDEX NO. 107244/2011

MOTION DATE _____

MOTION SEQ. NO. _____

Cynthia Neat

-v-

Mark Pfeffer

The following papers, numbered 1 to ____, were read on this motion to/for _____

Notice of Motion/Order to Show Cause — Affidavits — Exhibits _____ No(s). _____

Answering Affidavits — Exhibits _____ No(s). _____

Replying Affidavits _____ No(s). _____

~~Upon the foregoing papers, it is ordered that this motion is~~

Frye Hearing decided in accordance with accompanying order.

MOTION/CASE IS RESPECTFULLY REFERRED TO JUSTICE FOR THE FOLLOWING REASON(S): _____

Dated: 7/30/13

_____, J.S.C.
HON. ARLENE P. BLUTH

1. CHECK ONE: ..... ☐ CASE DISPOSED ☒ NON-FINAL DISPOSITION

2. CHECK AS APPROPRIATE: .....MOTION IS: ☐ GRANTED ☐ DENIED ☒ GRANTED IN PART ☐ OTHER

3. CHECK IF APPROPRIATE: ..... ☐ SETTLE ORDER ☐ SUBMIT ORDER

☐ DO NOT POST ☐ FIDUCIARY APPOINTMENT ☐ REFERENCE

SUPREME COURT OF THE STATE OF NY
COUNTY OF NEW YORK: PART 22

Index No.: 102244/11

Cynthia Neat,

Plaintiff,

-against-

Marc Pfeffer,

Defendant.

and a third-party action

DECISION/ORDER AFTER HEARING

HON. ARLENE P. BLUTH, JSC

In this action, plaintiff Cynthia Neat, a passenger in a taxi cab which was rear-ended by defendant, claims various injuries, including injuries to her right shoulder (rotator cuff and SLAP tears) and her right knee (miniscal tear) as well as injuries to her back and neck. This Court held a Frye hearing to determine whether defendant's expert, Dr. Robert Fijan, a biomechanical engineer, should be allowed to testify as to his opinion as to the forces involved in the accident and that the plaintiff could not have sustained any of these injuries in the subject accident. For the following reasons, plaintiff's motion to preclude Dr. Fijan's testimony at trial is denied in part and granted in part. He can testify as to the forces involved in the accident but can not testify as to whether those forces could have caused plaintiff's injuries.

Frye standard

"[W]hile courts will go a long way in admitting expert testimony deduced from a well-recognized scientific principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which

it belongs." *Frye v U.S.*, 293 F 1013, 1014 [DC Cir 1923]. Therefore, a Frye hearing is held to determine "whether the accepted techniques, when properly performed, generate results accepted as reliable within the scientific community generally" (*People v. Wesley*, 83 N.Y.2d at 422). Frye "emphasizes 'counting scientists' votes, rather than on verifying the soundness of a scientific conclusion." (*Wesley*, 83 NY2d at 439).

Whether the expert's testimony makes logical sense to the Court is irrelevant - the key to the Frye hearing is that both the theory and method used by the expert witness have already gained general acceptance in the relevant scientific field so that they are "generally accepted as reliable in the scientific community." See *Styles v General Motors Corp.*, 20 AD3d 338, 341 (1st Dept 2005)(even when each test on a vehicle was generally accepted, the combination of the two tests to one vehicle must also be generally accepted); *Frye v U.S.*, 293 F 1013 [DC Cir 1923]; *People v Wesley*, 83 NY2d 417, 422 [1994]).

The expert can establish that his methodology is generally accepted by the relevant scientific community by showing that peer-reviewed literature in the field supports his methodology. This would demonstrate that other scientists in his field have performed their own studies, using the same methods and theories, and reached the same conclusions enough times to be reliable and generally accepted. *Styles*, 20 AD3d 338 [2005]; *Fraser v 301-52 Townhouse Corp.*, 57 AD3d 416, 418-419 (1st Dept 2008) (it was not proven at the Frye hearing that it was generally accepted that indoor dampness and mold *cause* health problems).

Defendant's expert, Dr. Fijan

Dr. Fijan opined that the forces involved in the subject accident could not have caused the

injuries that plaintiff claimed. The Court held a Frye Hearing to determine whether the methods Dr. Fijan used to reach his conclusion are generally accepted in the scientific community. Dr. Fijan is highly educated and received his Master's and PhD in mechanical engineering from MIT. After receiving his PhD in 1990, he spent time as an assistant professor of Mechanical Engineering and Applied Mechanics at the University of Michigan. He is now a self-employed biomechanical engineer and estimated that he has testified in New York over fifty times, including in the field of accident reconstruction. Dr. Fijan is not, however, a medical doctor of any type; he never went to medical school, he does not have any patients and he does not diagnose or treat anybody. He works with numbers, pictures, graphs and computers.

In order to determine the forces involved in the accident, Dr. Fijan examined a black and white copy of one photo of the impacted taxi taken after the accident. The photo was of the rear of the taxi and showed a puncture-type hole in the material below the bumper. It did not show that the bumper was smashed in ("crush"). Dr. Fijan did not see the taxi's repair records – he assumed that the only damage was that one puncture hole and that nothing else was damaged. He also assumed that the bumper of that New York City taxi was original – that it had never been replaced; if it had been replaced, he had no idea of the thickness of the replacement material.

In any event, using his assumptions, including characteristics such as the stiffness parameters, weight, thickness of the material, height of the rear bumper of the taxi and front bumper of the defendant's car,[1] Dr. Fijan determined the change in velocity (the Delta V) that the taxi experienced upon impact, which he used to calculate the force that was applied to the taxi

[1]Dr. Fijan testified he used vehicle stiffness parameters from the results of publicly available crash tests, such as those performed by the National Highway and Traffic Safety Administration

upon impact. He then analyzed the way plaintiff, who was inside the taxi, must have moved due to the impact. In other words, based on the single photograph and his various assumptions, Dr. Fijan claimed he could tell how plaintiff's body was (or was not) thrown around the vehicle. Based upon her deposition testimony, which he also assumed was accurate, Dr. Fijan took into account in his calculations factors such as plaintiff's height, weight, and position of her body at time of impact (but he did not take into account her testimony about how far the taxi was pushed by the defendant's car).

Having determined the force of the impact and how her body moved inside the taxi due to the impact, Dr. Fijan then concluded that those forces could not have caused her shoulder tears (rotator cuff and SLAP tears), could not have cause her knee tear and could not have caused her claimed injuries to her neck and back. Dr. Fijan said that in order to cause plaintiff to suffer an injury, the forces and motions have to be sufficiently significant, and this was such a minor tap - which caused no crushing to either vehicle (another assumption, as Dr. Fijan had no picture of defendant's vehicle) – that the forces were not sufficient to cause any harm to plaintiff. In fact, Dr. Fijan testified that plaintiff's activities of daily living, which included caring for and picking up a nine year old disabled son and carrying around her own excess weight, generally caused more stress on her body than this accident did.

Analysis

There were two issues for this Court to resolve. The first issue is whether Dr. Fijan may testify as to the accident reconstruction; the Court finds the field of accident reconstruction, and

the methods of calculating the forces involved in the accident, and even how much force was applied to bodies inside the taxi, is generally accepted in the scientific community. Whether Dr. Fijan's assumptions (relying on a single black and white photo, not taking into account that plaintiff testified the vehicle traveled two car lengths due to the impact, etc.) render his findings unreliable is for cross-examination; the jury will decide how much of his testimony to believe, if any. And so while the numbers Dr. Fijan plugged into the formulas may be challenged, there can be no serious question that the formulas are generally accepted in the field of accident reconstruction.

However, Dr. Fijan could not show significant peer-reviewed literature validating the methods he used to conclude that the forces of that accident could not have caused the injuries plaintiff alleges she suffered. Dr. Fijan testified that this field is "injury biomechanics" - a science that combines the principles of mechanical engineering and the study of the human body. He testified that in order for a ligament to tear, it must be stretched to a certain point; in order for a bone to break, there must be a specific amount of force and bending. Understandably, experiments cannot be performed on live people – it would not be appropriate to ask volunteers to participate in crashes so their injuries can be measured. Additionally, it makes sense that a 75 year old woman with osteoporosis may suffer a broken bone with less force that it would take a 25 year old man's bone to break, and a swimmer's shoulder muscles may withstand more strain than those of a sewing machine operator. Perhaps for these reasons, Dr. Fijan did not cite peer-reviewed studies showing that his methodology is generally accepted in the scientific community for the purpose of determining injuries in car accidents.

Of course, biomechanics may be appropriate in other areas. For example, once someone is dead, the crime scene can be analyzed and clues, such as trauma to the body, location of the body, path of the bullet and blood splatter can be used to determine a host of things. Some of Dr. Fijan's cited literature came from the National Highway Traffic Safety Administration (NHTSA); it has done numerous studies with crash test dummies, many of which have led to important safety improvements in vehicles. However, while these studies have been based on biomechanics, as stated earlier, the dummies are based upon the 50th percentile in height and weight, not a woman of plaintiff's height and weight. Besides, even if plaintiff happened to be the size of a NHTSA crash dummy, Dr. Fijan failed to show that NHSTA studies reliably predict what force it would take to tear a rotator cuff or cause a meniscus tear, for example; crash-test dummies do not have human bones or ligaments or tendons. Some of the other literature about which Dr. Fijan testified related to sports medicine. Even if studies showed that a pitcher's rotator cuff could only withstand so many pounds of force/stretching before tearing, there was no proof that this plaintiff's rotator cuff was comparable to that of any athlete. Dr. Fijan cited to studies relied upon to build prosthetic devices and artificial joints; again, while a "normal" knee may take "x" pounds of pressure, who says this plaintiff had a normal knee? Certainly, Dr. Fijan, who is not a medical doctor, could not speak to the condition of plaintiff's body.

And so while there are many aspects to biomechanics, and studies may have been done in order to build an artificial knee, to help athletes train without injury, to get answers by viewing a crime scene, and to make cars safer by relying on crash dummies, Dr. Fijan failed to convince this Court that his conclusion – that this accident could not have caused plaintiff's injuries –

based upon methodology generally accepted by scientists in the field of biomechanics. Dr. Fijan cited to no peer-reviewed studies tying all these branches together – and then adding medical expertise to account for variances in the human body – in his testimony. He might do it, and other litigation consultants might do it, but in order to be admissible to a New York jury, it must be generally accepted in the scientific community at large.

Conclusion

Dr. Fijan may testify as to his accident reconstruction and the forces of the cars hitting and even the forces of the bodies inside the car. The problems plaintiff raised with Dr. Fijan's testimony on these points go to the weight of his testimony, not its admissibility.

However, Dr. Fijan may not testify regarding whether, in his opinion, plaintiff could have sustained her injuries in this accident. He has not shown that his methods of determining whether the injuries were caused by the accident are "generally accepted" and did not rely on any peer-reviewed studies or other scientific literature which utilized his methodology. While Dr. Fijan, who is not a medical doctor, mentioned various articles and their authors, there was not a single article relating any of plaintiff's claimed specific injuries to the force of the instant rear-end collision.

Dr. Fijan's testimony that there is plenty of research to support his methodology was conclusory. There may be many litigation consultants employing the same or similar procedures, but that is a far cry from the scientific community at large. Litigation consultants may be ahead of their time, but there is no indication that Dr. Fijan's methods have spread to and been accepted by the general scientific community. Therefore, Dr. Fijan's opinion that the accident did not

cause or contribute to plaintiff's injuries is based upon unreliable methodology and lacks sufficient foundation.

Finally, in *Santos v Nicolas*, 24 Misc.3d 999, 879 NYS2d 701 (Sup Ct Bx Cty 2009) *appeal dismissed* 65 AD3d 941, 885 NYS2d 202 (1ST Dept 2009), the Court precluded the testimony of a biomechanical expert who sought to testify that the plaintiff's injuries could not have been caused by that subject low-impact rear-end collision using the same rational used here - that the methods used by the proposed expert were not "generally accepted" in the scientific community. The First Department dismissed the appeal because a Frye ruling is an evidentiary one, which is "generally reviewable only in connection with the appeal from the judgment rendered after trial." However, the Court went on: "were we to reach the merits of the appeal, we would affirm" *Santos*, 885 NYS2d 202 (1ST Dept 2009).

Accordingly, based on the testimony adduced at the hearing, plaintiff's motion to preclude the testimony of Robert S. Fijan, Ph.D. is granted in part and denied in part. Dr. Fijan may testify as to the forces involved in the accident and the forces to the passengers in the car, but cannot testify as to whether those forces caused or contributed to plaintiff's injuries.

This is the Decision and Order of the Court.

Dated: July 30, 2013
New York, New York

HON. ARLENE P. BLUTH, JSC