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THE SUPREME COURT OF NEW HAMPSHIRE

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Hillsborough-northern judicial district  
No. 2015-0561

ARBAY M. OSMAN & a.

v.

WEN LIN & a.

Argued: June 22, 2016  
Opinion Issued: August 23, 2016

Shaheen & Gordon, P.A., of Manchester (Francis G. Murphy on the brief and orally), and Seufert Law, PA, of Franklin (Christopher J. Seufert on the brief), for the plaintiffs.

Primmer Piper Eggleston & Cramer, PC, of Manchester (Gary M. Burt and Adam R. Mordecai on the brief, and Mr. Burt orally), for defendants Wen Lin, Lepa Lin, and Property Services Company, LLC.

Sulloway & Hollis, P.L.L.C., of Concord, filed no brief for defendant Frederick Keefe, individually and as trustee of KC Realty Trust.

Getman, Schulthess, Steere & Poulin, P.A., of Manchester, filed no brief for defendants Rene Denis and Carmen Denis.

Kazan Shaughnessy McDonald, PLLC, of Manchester, filed no brief for defendant William Stergios.

BASSETT, J. In this interlocutory appeal, the plaintiffs, children who are Somali Bantu refugees or whose parents are Somali Bantu refugees, challenge an order of the Superior Court (Nicolosi, J.), granting the motion to exclude the expert testimony of Peter Isquith, Ph.D., filed by the defendants in whose Manchester apartments the plaintiffs once lived. See Sup. Ct. R. 8. After evaluating the 20 plaintiffs, Isquith, a clinical neuropsychologist, determined that 17 of them suffer from neurological deficits and opined that lead exposure was, more likely than not, a substantial factor in causing those deficits. The superior court excluded Isquith's testimony based upon its determination that his testimony was not "the product of reliable principles and methods," RSA 516:29-a, I(b) (2007), and its finding that he did not apply "the principles and methods reliably to the facts" of this case, RSA 516:29-a, I(c) (2007). The superior court has transferred the following question for our consideration:

Did the trial court commit an unsustainable exercise of discretion in excluding the testimony of Peter Isquith, Ph.D., based on its finding that Dr. Isquith's methodology fails to meet the threshold level of reliability required of an expert witness, per RSA 516:29-a and New Hampshire law?

We answer the transferred question in the negative.

### I. Background

We accept the statement of the case and facts as presented in the interlocutory appeal statement and rely upon the record for additional facts as necessary. See State v. Hess Corp., 159 N.H. 256, 258 (2009). Seventeen of the 20 plaintiffs are Somali Bantu refugees who were resettled to the United States in 2004. Three of the plaintiffs were born in the United States to Somali Bantu refugees. All of the plaintiffs learned English as a second language; their first language was either Maay Maay or a tribal language.

According to the plaintiffs, and not disputed by the defendants, the plaintiffs lived in the defendants' apartments during 2005-2006, and those apartments were contaminated by lead paint, a known health hazard. The plaintiffs have elevated levels of lead in their blood. In their complaints, which were consolidated for discovery and trial, the plaintiffs, through their parents,

allege that they were injured by their exposure to lead paint while living in the defendants' apartments.

The plaintiffs' counsel hired Isquith to assess whether the plaintiffs had neurological deficits that were more likely than not caused by lead paint exposure. Isquith did so primarily using two measures: (1) the Reynolds Intellectual Assessment Scales (RIAS); and (2) the Developmental Neuropsychological Assessment, Second Edition (NEPSY-II). The RIAS measures verbal and nonverbal intelligence and general intelligence. The NEPSY-II neuropsychological test is "specifically designed for children." Baxter v. Temple, 157 N.H. 280, 307 (2008) (describing the predecessor to the NEPSY-II). It consists of a flexible battery of 32 subtests, which are divided into six domains of cognitive functioning: attention and executive functioning; language; memory and learning; sensorimotor; social perception; and visuospatial processing. See id. "Each subtest has been individually standardized and . . . scored." Id.

According to one of the defendants' experts, standardization refers to the process by which raw scores on a test are converted to standard scores, meaning "a metric that has a uniform meaning." According to that expert, one way to standardize scores "is to test a substantial number of individuals, line up the[ir] scores from lowest to highest, and then determine, for each score or person, the percentage of individuals whose scores that person surpasses." "The result is referred to as a percentile score, which reflects [an individual's] relative standing [when] compared to others." Thus, "if one's . . . score falls at the 25th percentile," then that score is equal to, or exceeds, the scores of 25 out of 100 individuals. According to this defense expert, "[f]or information about relative standing to be of value, an individual needs to be compared to a suitable group." The expert explained that for many test applications, one seeks a "normative" group, which is a representative group of so-called "normal" individuals.

One of the challenges Isquith faced in using the RIAS and the NEPSY-II to evaluate the plaintiffs was the fact that most neuropsychological instruments, including the RIAS and NEPSY-II, were not developed and have not been validated for use with the plaintiff population. The normative sample for the RIAS did not include any recent immigrants to the United States from sub-Saharan Africa. The normative sample for the NEPSY-II expressly excluded children for whom English is a second language.\*

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\* "The NEPSY-II normative sample is a national, stratified, random sample consisting of 1,200 preschoolers, children, and adolescents between the ages of 3 and 16 years." Brooks et al., Healthy Children Get Low Scores Too: Prevalence of Low Scores on the NEPSY-II in Preschoolers, Children, and Adolescents, 25 Archives of Clinical Neuropsychology 182, 183 (2010). "Stratification of the entire normative sample by age, race/ethnicity, geographic location, and parental education was based on the October 2003 U.S. Census Survey." Id. Each of the 12 age groups "was sampled to closely resemble the 2003 U.S. Census information." Id. "Exclusion

To address that challenge, Isquith interpreted the plaintiffs' test scores "cautiously." Isquith explained that, to identify whether a plaintiff had a neurological deficit, he did not rely upon a single subtest score, but rather relied upon "patterns of poor scores on similar tests," meaning two or more in a single domain. (Quotation omitted.) He also relied upon only scores that were defined as "falling below or well below" expected levels of performance. (Quotation omitted.) Isquith's intent in so doing was to err on the side of not identifying a deficit, thus, making it more likely that the identification of any deficit was accurate.

The defendants moved to exclude Isquith's testimony on the ground that it is inadmissible under New Hampshire Rule of Evidence 702 and RSA 516:29-a (2007). See Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993). The defendants argued that the tests that Isquith used are not suitable for evaluating Somali Bantu refugees or their children because the tests were not "normed" for that population, and that the manner in which Isquith administered the tests and interpreted their results rendered his testimony unreliable.

Following a six-day evidentiary hearing, the trial court granted the defendants' motion in a well-reasoned 19-page order, concluding that the plaintiffs had failed to demonstrate: (1) that Isquith's testimony was "the product" of reliable methodology, RSA 516:29-a, I(b); and (2) that Isquith had applied the methodology "reliably to the facts" of this case, RSA 516:29-a, I(c).

The trial court found that the "most significant" problem with Isquith's methodology was that he evaluated the plaintiffs using tests that were neither developed nor validated for use with the plaintiff population. The tests were normed for a United-States born, English-speaking population and not for children, like the plaintiffs, for whom English is a second language. The court explained that, although "the tests . . . Isquith employed in this case may have reliability and validity with respect to their normative samples and other groups for which there is available data," they have no known reliability or validity for Somali Bantu refugees and their children. The court noted that "[w]hile the published tests have a known error rate, the error rate is for a very different normative sample, not for Somali Bantu refugees."

The court observed that, because neither the RIAS nor the NEPSY-II was normed for the plaintiff population, Isquith did not know "how a normal, healthy Somali Bantu [refugee] would perform on any of the tests

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criteria included diagnosis of a number of conditions that could potentially affect scores (i.e., neurological, learning, sensory/motor, or psychiatric disorders), as well as English as a second language, recent history of previous testing, and medication usage that might potentially impact performance." Id.

administered.” Without that information, the court questioned whether there was any “way of knowing whether the plaintiffs’ performance on the tests indicates a real deficit.”

The court also observed that Isquith’s specific methodology in this case “has not been subject to publication” or otherwise subject to the “rigors of meaningful peer review.” The court further found that Isquith did not “attempt to account for a host of other risk factors” that many of the plaintiffs may have faced, such as lack of preventative health care, exposure to war, and “low socioeconomic status.”

The court determined that these deficiencies were “further compounded by the uncertainty surrounding the cutoff[ ] scores [Isquith] employed” when determining whether the plaintiffs had neurological deficits. The court observed that Isquith gave conflicting testimony about the “cutoff scores” that he used, at times testifying that he identified a deficit by using scores that fell below the 15th percentile, and at other times testifying that he identified a deficit by using scores that fell below the 10th percentile. Regardless of the percentile used, the court found that Isquith “had no scientific basis to believe scores falling below the 10th or 15th percentiles would accurately identify deficits in Somali Bantu refugees.” The court concluded that Isquith’s “cautious” approach “largely amounted to guesswork, albeit well-educated guesswork,” and, as such, “would not assist the jury in arriving at a fair and just verdict.” (Quotation omitted.) This interlocutory appeal followed.

## II. Analysis

Before addressing the merits of the plaintiffs’ interlocutory appeal, we observe that they have not provided a complete record for our review. As the appealing party, the plaintiffs have the burden of providing a record sufficient to decide their issues on appeal. See Bean v. Red Oak Prop. Mgmt., 151 N.H. 248, 250 (2004); see also Sup. Ct. R. 13(2). Although they have provided the transcripts of the six-day evidentiary hearing, the plaintiffs have not provided all of the exhibits admitted into evidence at that hearing, including Isquith’s complete, three-volume deposition. The plaintiffs have also failed to provide the defendants’ motion to exclude, their objection to it, the parties’ post-trial memoranda, or all of the attachments to those pleadings. Absent a complete record, we must assume that the record supports the trial court’s factual findings. In the Matter of Rokowski & Rokowski, 168 N.H. 57, 62 (2015).

Rule 702 authorizes the trial court to admit expert witness testimony. See N.H. R. Ev. 702. To be admissible, however, expert testimony must rise to a threshold level of reliability. State v. Langill, 157 N.H. 77, 83 (2008). To determine the reliability of expert testimony, the trial court must comply with RSA 516:29-a. Portions of RSA 516:29-a codify principles outlined by the Supreme Court in Daubert. See id. at 85; see also Daubert, 509 U.S. at 592-

95; Baker Valley Lumber v. Ingersoll-Rand, 148 N.H. 609, 614 (2002) (applying the Daubert framework to evaluate the reliability of expert testimony under Rule 702).

RSA 516:29-a provides:

I. A witness shall not be allowed to offer expert testimony unless the court finds:

(a) Such testimony is based upon sufficient facts or data;

(b) Such testimony is the product of reliable principles and methods; and

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

II. (a) In evaluating the basis for proffered expert testimony, the court shall consider, if appropriate to the circumstances, whether the expert's opinions were supported by theories or techniques that:

(1) Have been or can be tested;

(2) Have been subjected to peer review and publication;

(3) Have a known or potential rate of error; and

(4) Are generally accepted in the appropriate scientific literature.

(b) In making its findings, the court may consider other factors specific to the proffered testimony.

“The overall purpose of Rule 702 and RSA 516:29-a is simply to ensure that a fact-finder is presented with reliable and relevant evidence, not flawless evidence.” Langill, 157 N.H. at 87. Thus, “as long as an expert’s scientific testimony rests upon good grounds, it should be tested by the adversary process — competing expert testimony and active cross-examination — rather than excluded from jurors’ scrutiny for fear that they will not grasp its complexities or satisfactorily weigh its inadequacies.” Id. at 88 (quotation and ellipsis omitted).

Here, one of the reasons that the court excluded Isquith’s testimony is that it found that he failed to apply the methodology reliably to the facts of this case. See RSA 516:29-a, I(c). “[U]nder RSA 516:29-a, I(c), when the

application of a scientific methodology is challenged as unreliable . . . , outright exclusion of the evidence . . . is warranted only if the methodology was so altered by a deficient application as to skew the methodology itself.” Langill, 157 N.H. at 88 (quotation and emphasis omitted). “This inquiry is of necessity a flexible one,” id. at 87 (quotation and brackets omitted), so as to “encompass the multitude of scenarios that may be presented and to maintain the division in function” between the jury, as fact-finder, and the trial court, as gatekeeper, id. at 88.

We review the trial court’s determination that Isquith did not apply the methodology reliably to the facts of this case under our unsustainable exercise of discretion standard. See Baxter, 157 N.H. at 302. In applying our unsustainable exercise of discretion standard of review, we determine only “whether the record establishes an objective basis sufficient to sustain the discretionary judgment made.” State v. Lambert, 147 N.H. 295, 296 (2001). Under our unsustainable exercise of discretion standard, “[o]ur task is not to determine whether we would have found differently,” but only “to determine whether a reasonable person could have reached the same decision as the trial court on the basis of the evidence before it.” Benoit v. Cerasaro, 169 N.H. \_\_\_, \_\_\_ (decided April 19, 2016) (quotation omitted).

The plaintiffs argue that the trial court unsustainably exercised its discretion because it used a higher standard for admissibility than whether Isquith’s testimony rested upon “good grounds.” Langill, 157 N.H. at 88 (quotation omitted). They contend that, contrary to the trial court’s findings, “Isquith used sound principles in applying accepted assessment tools to the minor plaintiffs.” They assert that he “used the same methodology that is used in clinical and school settings for cross-cultural assessments.” According to the plaintiffs, therefore, the trial court “exceeded its role” as gatekeeper. We disagree.

We find Kumho Tire Co. v. Carmichael, 526 U.S. 137 (1999), instructive. In that case, the Supreme Court ruled “that it was not the general acceptance of the methodology that was relevant.” Blue Dane Simmental v. American Simmental Ass’n, 178 F.3d 1035, 1040 (8th Cir. 1999); see Kumho Tire, 526 U.S. at 153-54. “Rather, it was the reasonableness of using such an approach, along with [the expert’s] particular method of analyzing the data thereby obtained, to draw a conclusion regarding the particular matter to which the expert testimony was directly relevant.” Kumho Tire, 526 U.S. at 154. Thus, the Court upheld the trial court’s exclusion of a qualified tire expert’s use of visual and tactile examination of automobile tires even though “as a general matter, tire abuse may often be identified by qualified experts through visual or tactile inspection of the tire.” Id. at 156.

In upholding the trial court’s decision, the Court observed that the record did not demonstrate that other experts in the industry used the expert’s

specific methodology. See id. at 157. Nor did the parties refer the Court to any articles or papers validating the expert’s approach. Id. Although the expert “claimed that his method was accurate,” the Court ruled that the district court was not required “to admit opinion evidence that is connected to existing data only by the ipse dixit of the expert.” Id. (quotation omitted). Under these circumstances, the Court concluded that “the doubts that triggered the [trial court’s] initial inquiry . . . were reasonable, as was [its] ultimate conclusion” that the expert’s testimony was insufficiently reliable to be admissible. Id. at 153.

Similarly, in Blue Dane Simmental, although the expert in that case had “utilized a method of analysis typical within his field,” the appellate court concluded that the trial court had not abused its discretion by excluding his testimony when: (1) his method was “not typically used to make statements regarding causation without considering all independent variables that could affect the conclusion”; (2) there was “no evidence in the record that other economists” used the expert’s “before-and-after modeling” to support conclusions about the causes of fluctuations in the market; and (3) the plaintiffs had not cited “any articles or papers that would support [the expert’s] approach.” Blue Dane Simmental, 178 F.3d at 1040-41.

This case is analogous to Kumho Tire and Blue Dane Simmental. Although there was evidence that the RIAS and NEPSY-II are generally used to determine whether school children are in need of educational services, the trial court could reasonably have found that they are not typically used for the specific purpose for which Isquith used them — to determine whether children who are either Somali Bantu refugees themselves or the children of such refugees have neurological deficits that are more likely than not caused by lead paint exposure. As one of the defendants’ experts testified, Isquith used the RIAS and NEPSY-II here in a way that is “very different . . . from the usual application in clinical practice,” and for a purpose for which those tests have “not been validated.” As another defense expert explained, there is a difference between using the RIAS and NEPSY-II to determine “how well [the plaintiffs] are . . . progressing in their ability to perform verbal reasoning in English compared to their typical age mates in the United States at large” and using those tests to examine the plaintiffs’ “brain function” and “the cause of any known brain abnormalities.” This expert opined that because “the ‘expected levels’ of performance of Somali Bantu [refugee] children generally and specifically those not exposed to environmental lead are unknown, . . . the inference that any number of scores that are below the expected level of [the] . . . individuals for whom [the tests were] normed represent neuropsychological or brain-related deficits caused by lead exposure has no basis in psychometrics (or science) and is simply speculation.” (Quotation and citation omitted.)



Moreover, the trial court could also have reasonably determined that the plaintiffs failed to establish that, when using the RIAS or NEPSY-II cross-culturally, other neuropsychologists use the same method for interpreting test results that Isquith used here. The plaintiffs have not referred us to articles or papers validating the specifics of Isquith’s “cautious” approach to interpreting those results. At the evidentiary hearing, Isquith admitted that he was not aware of any study that had employed his specific methodology of relying upon nonverbal testing and scores below the 10th percentile, and requiring such scores on two or more tests in the same domain. One of the defense experts agreed that there was no publication in the relevant scientific community that “endorses specifically the methodology that . . . Isquith employed to assess these children.” Notably, one of the treatises upon which the plaintiffs relied specifically states that “[w]hen using [neuropsychological] procedures in a nonnormative and qualitative fashion, the use of numerical cutoffs and normative statistics is inappropriate and misleading, and should be avoided.” T. Wong et al., Theoretical and Practical Issues in the Neuropsychological Assessment and Treatment of Culturally Dissimilar Patients, in Handbook of Cross-Cultural Neuropsychology 3, 15 (Elaine Fletcher-Janzen et al., eds., 2000). Although Isquith opined that his use of the RIAS and NEPSY-II complied with the “generally-accepted principles” of his profession, the trial court was not required to admit his testimony based solely upon his authority. See Kumho Tire, 526 U.S. at 157.

Additionally, the trial court reasonably could have questioned Isquith’s methodology given the uncertainty surrounding the cutoff scores that he used to determine whether each plaintiff suffered from a neurological deficit. At one point in his deposition, Isquith testified that he did not use a specific cutoff score to conclude that a child had a deficit. Later in his deposition, he asserted that he used scores that fell below the 15th percentile. On the first day of the hearing, Isquith testified that his “interpretations were made when children fell at least below the 15th percentile.” Thereafter, he testified that he used scores that fell below the 10th percentile.

Under these circumstances, we cannot conclude that the trial court unsustainably exercised its discretion when it found that Isquith failed to apply the methodology reliably to the plaintiffs. The trial court reasonably could have found that Isquith’s use of the RIAS and NEPSY-II tests to assess whether the plaintiffs suffered from neurological deficits and his interpretation of their test results for that purpose did not constitute mere “minor variations in some steps” of the testing protocol. United States v. Johnson, 56 F.3d 947, 953 (8th Cir. 1995); cf. Baxter, 157 N.H. at 314 (ruling that the trial court unsustainably exercised its discretion by excluding the expert’s testimony when the “only arguably true error” in his application of the methodology was that he exceeded the time limits for certain tests). Rather, the trial court reasonably could have determined that Isquith’s application of the methodology rendered his

testimony so unreliable as to negate the generally accepted reliability of the RIAS and NEPSY-II for other purposes. See Langill, 157 N.H. at 87.

Although the evidence before the trial court was conflicting, we defer to the trial court's judgment on such issues as resolving conflicts in the testimony, measuring the credibility of witnesses, and determining the weight to be given evidence. Cook v. Sullivan, 149 N.H. 774, 780 (2003). Under our unsustainable exercise of discretion standard of review, "[o]ur only function . . . is to determine whether a reasonable person could have reached the same decision as the trial court on the basis of the evidence before it." Benoit, 169 N.H. at \_\_\_. Based upon the record submitted on appeal, we hold that a reasonable person could have ruled, as the trial court did in this case, that excluding Isquith's testimony was warranted because the methodology that he used — even if reliable in other contexts — was "so altered by a deficient application as to skew the methodology itself." Langill, 157 N.H. at 88 (quotation omitted).

Because we have upheld the trial court's finding that Isquith failed to apply the methodology "reliably to the facts of the case," we need not address its determination that his testimony is not "the product of reliable principles and methods." RSA 516:29-a, I(b), (c). We have reviewed the plaintiffs' remaining arguments and conclude that they warrant no further discussion. See Vogel v. Vogel, 137 N.H. 321, 322 (1993).

Affirmed.

DALIANIS, C.J., and CONBOY, J., concurred.