

COURT OF APPEALS OF VIRGINIA

Present: Judges Benton, Annunziata and Overton
Argued at Richmond, Virginia

ANTONIO HODGES

v. Record No. 2116-94-2
COMMONWEALTH OF VIRGINIA

OPINION BY
JUDGE ROSEMARIE ANNUNZIATA
NOVEMBER 18, 1997

FROM THE CIRCUIT COURT OF MIDDLESEX COUNTY
Thomas N. Nance, Judge Designate

Jerry C. Lyell for appellant.

John H. McLees, Jr., Assistant Attorney
General (James S. Gilmore, III, Attorney
General, on brief), for appellee.

Following a jury trial, appellant, Antonio Hodges, was convicted of rape and armed burglary. To prove its case, the Commonwealth relied largely on an apparent match between the rapist's deoxyribonucleic acid (DNA) and that of appellant. The Commonwealth's experts testified concerning the statistical probability that the apparent DNA match could have occurred at random. Appellant contends that the trial court erred (1) in allowing the Commonwealth's rebuttal expert witness to offer an opinion concerning the probability of a random match based on certain DNA test results which were not considered by the Commonwealth's other expert during its case-in-chief; (2) in denying appellant's motion to compel discovery concerning proficiency testing of the Commonwealth's DNA expert who conducted the tests and of the laboratory where the tests were conducted; and (3) in refusing to authorize appellant's

employment, at the Commonwealth's expense, of a third expert witness to assist in his defense.

Finding no error, we affirm.

I. TESTIMONY CONCERNING RANDOM MATCH PROBABILITIES

The victim, a fifty-year-old high school teacher, lived alone in a house in Middlesex County. One night she was awakened from her bed by a masked man standing over her, pressing his gloved hand against her face. When she resisted, the assailant placed a knife to her face, threatened to kill her and told her to "shut the ---- up." The man eventually bound and raped her.

The victim was unable to positively identify her assailant, but she testified that appellant, whom she knew as a former student at the high school, was exactly the same height, weight and build as her attacker. Other evidence showed that appellant lived approximately one mile from the victim and that he knew where the victim lived. A hair and fiber expert testified that three pubic hairs of unknown origin removed from the victim following the attack were "microscopically alike in all identifying characteristics" when compared with appellant's pubic hairs.

The Commonwealth also introduced DNA evidence to identify appellant as the rapist. The Commonwealth's primary DNA expert was Robert Scanlon, a forensic scientist at Virginia's Division of Forensic Science Central Laboratory (central lab). Employing two analytical testing procedures, known as the polymerase chain

reaction (PCR) and the restriction fragment length polymorphism (RFLP), Scanlon compared samples of appellant's DNA with samples of DNA taken from the rapist's sperm.

Scanlon testified that if the two samples did not match, then appellant could not have been the rapist. If the samples matched, however, appellant would be included in a category of individuals whose genetic pattern was consistent with that of the rapist. That is, a match would establish that appellant could have been the rapist.

The results of the PCR analysis showed that appellant's DNA was consistent with that of the rapist; thus, appellant could not be eliminated as a suspect. Scanlon testified that approximately twenty percent of the population shares the same genetic pattern revealed by the PCR analysis. In other words, following the PCR analysis, the probability of a random match between the DNA of the rapist and that of appellant was one in five.

The RFLP technique involves the use of DNA "probes" to compare the DNA samples. In the present case, Scanlon "ran" five separate probes. He testified that each of the five probes showed that appellant's DNA was consistent with that of the rapist. In two of the five probes, however, the genetic material of the rapist and that of the victim "overlapped." While it was clear to Scanlon that these two probes did not exclude appellant as the rapist, pursuant to central lab's policy, Scanlon did not include them in formulating his statistical conclusions.

Based on his consideration of the remaining three probes, and in conjunction with the results of the PCR testing, Scanlon testified that the probability of appellant's DNA randomly matching that of the rapist was one in 39 million among the caucasian population, one in 35 million among the black population, and one in 62 million among the hispanic population.

The Commonwealth asked Scanlon to consider the remaining two probes as DNA matches and calculate the probability of a random match based on all five probes. The court sustained appellant's objection to Scanlon's consideration of the remaining probes, stating, "if it's not comfortable enough for him, it's not comfortable enough for me."

Later, in the defense case, defense expert Dr. Peter D'Eustachio testified on cross-examination that the genetic patterns from the two probes which Scanlon did not consider in reaching his statistical conclusions had most likely been contributed by the rapist and not by the victim. The Commonwealth then asked Dr. D'Eustachio whether that fact would more closely associate the sperm donor, i.e., the rapist, with appellant. Appellant's counsel objected, stating:

[i]f [the Commonwealth is] talking about the two [probes] that Your Honor disallowed Mr. Scanlon to give figures on, then our objection is based on the fact that you disallowed testimony about those two [probes]. Why are we back on those two?

The court responded:

I didn't disallow any testimony about those [probes]. I wouldn't let Mr. Scanlon put a

-- figure them in his calculation because he did not originally use them in his calculation, and I held him to that. And it's perfectly proper. This man is a molecular biologist and knows what he's talking about, so it's a fair question.

Dr. D'Eustachio acknowledged that consideration of the two remaining probes more closely associated appellant with the rapist.

In its rebuttal case, the Commonwealth called Dr. Scott Raymond Diehl as an expert in molecular biology and population genetics. Dr. Diehl endorsed Scanlon's method of calculating the statistical probabilities of a random match between appellant's DNA and that of the rapist; Dr. Diehl discredited the method espoused by appellant's expert.

Dr. Diehl further testified, with a high degree of certainty, that the DNA material on the two probes which Scanlon had excluded from his consideration had come from the rapist rather than the victim. Appellant objected to Dr. Diehl's calculating the statistical probability of a random match based on all five probes. He complained that Dr. Diehl should not be allowed "to put in a different case than what Mr. Scanlon has already testified to." The court overruled the objection in light of the testimony of both Drs. D'Eustachio and Diehl that the DNA in question on the two probes had been contributed by the rapist and not the victim. Dr. Diehl testified that when considering all five probes, the probability of a random match between appellant and the rapist was one in 58.3 billion among

the caucasian population, one in 39.4 billion in the black population, and one in 13 billion in the hispanic population.

We utilize an abuse of discretion standard to review the trial court's decision to allow Dr. Diehl to testify concerning random match probabilities based on all five probes; in absence of abuse, the court's judgment will not be disturbed on appeal. See Foley v. Commonwealth, 8 Va. App. 149, 165, 379 S.E.2d 915, 924, aff'd on reh'g, 9 Va. App. 175, 384 S.E.2d 813 (1989) ("[A] trial court in its discretion may allow the Commonwealth to present rebuttal evidence even when it would have been more appropriately introduced as part of the case-in-chief"); cf. Chrisman v. Commonwealth, 3 Va. App. 371, 375-76, 349 S.E.2d 899, 902 (1986) ("Whether the Commonwealth should be permitted to introduce additional evidence in chief after it has rested is a matter for the sound discretion of the trial court."). We find no abuse of discretion.

The two probes in question were admitted into evidence, without objection, during Scanlon's direct testimony. Scanlon testified unequivocally that neither of the two probes excluded appellant as the rapist. Pursuant to his lab's policy, however, Scanlon did not consider the two probes when determining the probability of a random match between appellant and the rapist because the genetic material in the two probes had "overlapped."

During subsequent cross-examination in the defense case, defense expert Dr. D'Eustachio acknowledged that the genetic pattern on

the two probes that had been observed to match that of appellant had most likely come from the rapist's DNA, not from the victim.

Likewise, Dr. Diehl unequivocally opined that the genetic material in question on the two probes which had been observed to match that of appellant had been contributed by the rapist, not the victim. Appellant raised no objection to the Commonwealth's questions to Drs. D'Eustacio and Diehl, which sought to elicit an opinion concerning the identity of the donor of the genetic material on the two probes in question. Dr. Diehl's computation of random match probabilities based on all five probes was based on evidence properly before the court, including the probes themselves, as well as expert testimony that appellant's DNA matched that of the rapist in all five probes. We find no abuse of discretion by the trial court in allowing Dr. Diehl to testify concerning his consideration of the evidence before the court.¹

II. DISCOVERY OF PROFICIENCY TEST RESULTS

The proficiency of DNA analysts such as Scanlon is gauged, in part, through participation in blind tests. At issue here are two proficiency tests conducted through a particular testing agency, Collaborative Testing Services, Inc. (CTS).

The testing procedure was as follows. Scanlon completed

¹Appellant contends that the court's decision to allow Dr. Diehl to testify concerning probabilities based on all five probes violated his statutory right to receive notice of and copies of any DNA reports that the Commonwealth intended to offer at trial. However, appellant failed to make such an argument at trial and is, therefore, procedurally barred from raising it on appeal. Rule 5A:18.

sample DNA tests developed by various testing agencies. The tests were returned to the central lab director, who returned them to the testing agency. The testing agency evaluated the results and calculated a proficiency rating for the test-taker. CTS produces a manual detailing of the results of the proficiency tests but identifying by code the test-takers and laboratories in which the tests were taken.

In April, 1994, a discovery order was entered, directing the Commonwealth to produce, inter alia, "copies of records of proficiency testing of personnel in the laboratories where [DNA] analyses were performed." In May, 1994, the parties entered an agreement on DNA and serology discovery which provided, inter alia, that "[a] memorandum recounting the proficiency testing of Mr. Scanlon and the results thereof will be provided by the laboratory."

The memorandum produced by the Commonwealth identifies four proficiency tests completed by Scanlon. The tests are identified by number, manufacturer, sample information and dates of completion. The memorandum notes that "[n]o deficiencies were noted in Mr. Scanlon's testing of [three of the tests]" and "[t]o date, no information has been received from the manufacturer regarding the results of [the fourth]."

Appellant filed a motion to compel further discovery concerning the two proficiency tests administered through CTS. He sought information concerning the details of Scanlon's tests

and his numerical results, rather than the lab's conclusion that there were no deficiencies in Scanlon's tests. Specifically, appellant sought disclosure of the CTS identification code that corresponded with Scanlon's proficiency test so he could "inquire as to how [Scanlon] did on this proficiency test." Appellant argued that the language in the May agreement, directing the Commonwealth to "recount[] the testing of Mr. Scanlon and the results thereof," required disclosure of the details of Scanlon's tests. The court reviewed the memorandum the Commonwealth had produced and concluded that it was sufficient under the terms of the agreement. Accordingly, it denied appellant's motion to compel further discovery.

Appellant argues that without the actual test data he was unable to determine Scanlon's proficiency for himself. Cf. Ellis v. Commonwealth, 14 Va. App. 18, 22, 414 S.E.2d 615, 617 (1992) (accused not required to accept conclusion of chemist, disclosed in certificate of analysis, that substance accused possessed was cocaine). We find the trial court did not abuse its discretion in denying appellant's motion to compel further discovery. The Commonwealth's production of the memorandum was consistent with the parties' agreement, which reflected the materials the parties intended to be disclosed in discovery; i.e., a memorandum recounting Scanlon's testing and the results thereof.

On appeal, appellant complains that the court's denial of his further discovery request failed to comport with the April

discovery order. Appellant failed to raise such an argument before the trial court.² The issue before the court was whether the Commonwealth's memorandum comported with the May agreement concerning discovery. The effect of that agreement, if any, upon the prior discovery order was not raised or addressed below, and we will not address it for the first time on appeal. Rule 5A:18.

Appellant further complains that he was not provided the proficiency test results of the entire central lab. He cites an article by Dr. Jonathan J. Koehler which he claims shows that the results of the CTS tests in question here reflected errors by the laboratories taking the tests, including false positive identifications. In his brief, appellant stresses the importance of disclosing the results of proficiency testing to the jury and the need for the trier of fact to consider rates of error. He complains that the anonymity of the laboratories in the CTS report prevented him from presenting evidence on the central lab's overall proficiency and its aggregate rate of error. This, he claims, violated his right to call evidence in his favor. See Cox v. Commonwealth, 227 Va. 324, 328-29, 315 S.E.2d 228, 230 (1984); Lomax v. Commonwealth, 228 Va. 168, 172, 319 S.E.2d 763, 765 (1984).

Appellant, however, failed to raise any of these contentions

²Indeed, the record plainly shows that at the hearing on appellant's motion to compel further discovery, appellant argued that the terms of the May agreement compelled production of the information he sought.

when he argued his motion to compel further discovery. Before the trial court, appellant stated, "We would be satisfied if the laboratory could identify which test corresponds with this analyst [Scanlon]. That's all we're asking for." He did not request proficiency testing of the entire central lab. Nor did appellant refer the trial court to Dr. Koehler's study or argue the relevance of the central lab's test results. Accordingly, we find appellant's complaint with respect to the proficiency testing of the central lab to be procedurally barred. Rule 5A:18.

Furthermore, on this record, we cannot say that appellant established the relevance of obtaining the results of the central lab's proficiency tests. See Cox, 227 Va. at 328-29, 315 S.E.2d at 230-31 (information in question must be material to case); Patterson v. Commonwealth, 3 Va. App. 1, 7, 348 S.E.2d 285, 289 (1986) (same). Here, nothing suggests that anyone, other than Dr. Scanlon, performed the tests relied upon in this case, and nothing in the record supports the conclusion that the lab's overall proficiency level has any bearing on the proficiency of a particular examiner or the accuracy of the particular tests performed in this case.

III. APPOINTMENT OF THIRD EXPERT

In May, 1994, appellant filed a motion seeking authorization for employment of three experts to aid in his defense at the Commonwealth's expense. Appellant requested (1) Dr. Peter

D'Eustachio, to provide a foundation in molecular biology; (2) Dr. Lawrence D. Mueller, to explain population genetics and statistics; and (3) Dr. Jonathan J. Koehler, an expert in applied statistics and psychology, to take the ball and run with it and explain what kind of statistics have been used, how they're prejudicial and give us the psychological parameter--psychological dimension, which we've not had before. Dr. Koehler has expertise in psychology, especially the psychology of the impact of this type of information on juries, and that's an added dimension that we would like to bring in.

The court granted appellant's motion with respect to Drs. D'Eustachio and Mueller, but it refused to authorize the employment of Dr. Koehler, noting its concern that the proffered testimony would invade the province of the jury. We find no error in the court's decision.

The Commonwealth must provide indigent defendants with "the basic tools of an adequate defense," including appointment of non-psychiatric experts where the accused makes a "particularized showing of . . . need." Husske v. Commonwealth, 252 Va. 203, 211, 476 S.E.2d 920, 925 (1996) (quoting Ake v. Oklahoma, 470 U.S. 68, 77 (1985)).

"Mere hope or suspicion that favorable evidence is available is not enough to require that such help be provided.' . . . This particularized showing demanded . . . is a flexible one and must be determined on a case-by-case basis.' . . . The determination . . . whether a defendant has made an adequate showing of particularized necessity lies within the discretion of the trial judge."

Id. at 212, 476 S.E.2d at 925-26 (quoting State v. Mills, 420 S.E.2d 114, 117 (N.C. 1992)). The accused must "demonstrate that the subject which necessitates the assistance of the expert is 'likely to be a significant factor in his [or her] defense,' and that he [or she] will be prejudiced by the lack of expert assistance." Id. (quoting Ake, 470 U.S. at 82-83). This burden is satisfied by showing that an expert's services "would materially assist [the accused] in the preparation of his [or her] defense and that the denial of such services would result in a fundamentally unfair trial." Id. In Husske, the Commonwealth presented two DNA experts but provided no expert for the indigent defendant. The Supreme Court upheld the conviction because the defendant failed to establish the basis for the appointment of an expert.

In light of the principles established in Husske, we find the trial court did not abuse its discretion in refusing to appoint Dr. Koehler. Appellant articulated no particularized need for the appointment of Dr. Koehler in addition to the two experts of appellant's choosing that the court provided. Appellant proffered that he intended to rely on Dr. Koehler during trial to testify concerning error rates and inferences that may be drawn from statistical evidence.³ Dr. Mueller

³Appellant also intended to rely on Dr. Koehler's expertise in behavioral science to attack the admissibility of the DNA evidence. However, the admissibility of DNA evidence is firmly established by Code § 19.2-270.5.

covered the ground Dr. Koehler would have covered with respect to statistics and error rates. Dr. Mueller, an expert in population genetics and statistics, testified at length concerning the propriety of the statistical methods Scanlon used to calculate the random match probabilities. Dr. Mueller also testified concerning proficiency testing and the relationship between a statistical error rate and a statistical probability of finding a random match. He opined that the important consideration in evaluating a statistical conclusion was the error rate rather than the probability of finding a random match because error would be more likely to occur.

We find the proffered testimony of Dr. Koehler to be not material to the preparation of appellant's defense in light of the assistance he received from Drs. D'Eustacio and Mueller. Finally, Dr. Koehler's testimony concerning the psychological impact of statistical evidence on the jury would, in effect, constitute a comment on the weight to be given such evidence, a clear and improper invasion of the jury's role. In sum, we find no basis to conclude that appellant was prejudiced by the court's decision not to appoint Dr. Koehler.

Appellant's convictions are accordingly affirmed.

Affirmed.

Benton, J., concurring.

I concur in sections I and III of the majority opinion. I concur in the result reached in section II but write separately because I disagree with the majority's analysis.

PRESERVATION OF THE APPEAL

The majority concludes that Hodges failed to raise before the trial judge his arguments regarding the denial of his Motion to Compel Discovery. I disagree. First, the majority argues that Hodges failed to argue that the Commonwealth did not comply with the trial judge's original discovery order. However, the written motion filed by Hodges states the following, in pertinent part:

COMES NOW [Hodges], by counsel, and represents to the Court that the Commonwealth has refused to produce discovery in accordance with the previously entered discovery order in these cases, to wit: records of proficiency testing pursuant to paragraph 2(w) of said order.

Paragraph 2(w) of the April 1994 discovery order required the Commonwealth to provide Hodges "copies of records of proficiency testing of personnel in the laboratories where RFLP and PCR analyses were performed in these cases." The Commonwealth's argument that the disclosure met the requirements of the parties' subsequent agreement does not negate the fact that Hodges raised in his motion the Commonwealth's failure to comply with the April discovery order. Accordingly, I would hold that Hodges preserved his objection that the Commonwealth failed to comply with the

discovery order.

The majority next concludes that Hodges failed to argue before the trial judge that the anonymity of the laboratories in the CTS report prevented him from determining the laboratory's overall proficiency and rate of error. I disagree. At the hearing on Hodges' Motion to Compel Discovery, the following discussion occurred:

COUNSEL: . . . Our discovery is incomplete in one small detail. There have been some references to forensic proficiency testing which has been performed or has been based upon tests submitted to the Virginia laboratory with the results turned in to an evaluating agency, and we received the results; however, these tests are sent out to many laboratories and the results are returned to the evaluating agency.

Now, upon evaluating the tests, they publish these in a book form like this, but all the laboratories are coded so that you can't tell who it is without having the laboratory number. So our request is to have the laboratory number so that we can more properly discuss these materials.

* * * * *

THE COURT: . . . Why do you need to know that?

COUNSEL: Well, in this particular case, we're not concerned with all of the other 39 or 40 laboratories around the country who may have reported in. We're concerned with the Virginia laboratory. So in that connection, we are seeking . . . the identification . . . which sets of these results correspond to the laboratory we're interested in discussing here to see if they did do well on the test or if they didn't do well on the test or any questions like that.

Counsel did state during the argument that he "would be satisfied if the laboratory could identify which test corresponds with this analyst." However, later in the discussion counsel resumed his argument that he needed the laboratory's identification code. Counsel clearly made the trial judge aware of the relief he sought and the grounds in support of his assertion. See Code § 8.01-384(A) ("[I]t shall be sufficient that a party, at the time the ruling or order of the court is made or sought, makes known to the court the action which he desires the court to take . . . and his grounds therefor. . . ."). Accordingly, I would hold that Hodges also preserved this argument for appeal.

MERITS

However, the record reveals that Hodges signed an agreement with the Commonwealth that purported to govern the manner in which the Commonwealth would satisfy its discovery burden as provided in the prior discovery order. The agreement, entitled "Agreement on DNA and Serology Discovery," stated, in pertinent part, the following:

It is hereby agreed that discovery related to DNA and serological analyses will be provided in the manner described in the paragraphs that follow.

* * * * *

6. A memorandum recounting the proficiency testing of Mr. Scanlon and the results thereof will be provided by the laboratory.

The memorandum the Commonwealth later provided to Hodges

described the nature of each of four tests performed. Specifically, the report set forth the manufacturer of each test, the nature of the blood samples used, and the kinds of analyses completed on the samples. The report stated that no deficiencies were found in three of the tests. The results from the fourth test had not been received. Because the memorandum appears to "recount[] the proficiency testing . . . and the results thereof," I would hold that the Commonwealth satisfied its burden under the agreement and the order to which it pertained. Accordingly, I concur.