

MILLER v. STATE

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399 S. W. 2d 268

Opinion delivered February 21, 1966

1. CRIMINAL LAW—EVIDENCE—EXPERT TESTIMONY, SUFFICIENCY OF FACTS TO SUPPORT OPINION.—While absolute certainty is not required of an expert, it is necessary that the facts upon which the expert bases his opinion permit reasonably accurate conclusions as distinguished from guess or conjecture.
2. CRIMINAL LAW—EVIDENCE—EXPERT TESTIMONY, ADMISSIBILITY OF.—Where there was no foundation upon which expert based his conclusion that the dirt on defendant's clothing came from the scene of the burglary, the admission of expert's testimony concerning probabilities was erroneous.
3. CRIMINAL LAW—TRIAL—VIOLATION OF CONSTITUTIONAL RIGHTS & DUE PROCESS.—Close association of the sheriff and jury panel during the term of court was not, under the facts, shown to be such that jurors would give sheriff's testimony undue weight thereby prejudicing defendant's rights, and in violation of due process of law.

Appeal from Greene Circuit Court, *John S. Mosby*, Judge; reversed and remanded.

W. B. Howard and *Jack Segars*, for appellant.

Bruce Bennett, Attorney General, *Clyde Calliotte*, Asst. Atty. General, for appellee.

JIM JOHNSON, Justice. This appeal from a burglary conviction questions the admissibility of certain expert opinion testimony.

Appellant Leland Miller was charged by information in Greene Circuit Court with the crime of burglary, specifically with breaking into an office building on June 21, 1964, with intent to commit larceny. Trial before a jury on May 18, 1965, resulted in a verdict of guilty of burglary as charged. From judgment on the verdict comes this appeal.

The state's case was based on circumstantial evidence. During a routine patrol after midnight, police officers noticed that drapes which were supposed to be open in the office building had been closed. When the officers investigated, they found a door open and no one in the building. Appellant's unoccupied car was parked about one-quarter mile away. There were footprints leading from the building to a ditch some distance away where someone had apparently fallen in the mud; appellee's expert witness testified that a dirt sample taken from the ditch corresponded to dirt taken from appellant's clothes, and that a piece of cloth found on a barbed wire fence some distance from the building corresponded with the cloth of a shirt in appellant's possession at the time of his arrest.

For reversal appellant first urges that the trial court erred in admitting the testimony of Dr. Dan Matthews, speculating as to the probabilities that dirt from appellant's clothing came from the scene of the burglary.

“An expert witness may be defined as a person who is so qualified, either by actual experience or by careful study, as to enable him to form a definite opinion of his own respecting any division of

science, branch of art, or department of trade about which persons having no particular training or special study are incapable of forming accurate opinions or of deducing correct conclusions. Accordingly, therefore, one qualified by professional, scientific, or technical training or by practical experience, in regard to a particular subject or field of endeavor, which gives him special knowledge not shared by persons in the ordinary walks of life, may testify as an expert on questions coming within the field of his training and experience, subject, of course, to the broad exclusionary rules of evidence relative to pertinency and relevancy; but if he is not so qualified, his testimony is incompetent." 29 Am. Jur., Evidence, § 783.

Dr. Matthews was called as an expert witness by the state. In the initial examination, he stated that his profession was "chemist with the University of Arkansas with the Graduate Institute of Technology in Little Rock." The next question about his background, training and experience elicited the following response:

"College training at University of Arkansas, major in chemistry. Received Bachelor's Degree in 1952, at which time I took part time job doing research and the other part going to school. Received Master's Degree from same place in 1955. I was instructor at Georgia Tech the following year, '55-'56. Came back to the University of Arkansas, same arrangement as before, part time research and worked on my Ph.D., and received Doctor's Degree in 1959. Took a job with University of Arkansas Medical Center either late '58 or early '59, worked there two years, and then I transferred to University Graduate Institute of Technology as professor of chemistry there—actually assistant when teaching and studying—as professor there at the present time."

After identifying certain exhibits (appellant's Sox, shoes

and trousers and a fruit jar containing dirt from the ditch), Matthews was asked if he had run "any tests, comparative or otherwise, and if so, what your tests were?" Matthews answered that he was asked to compare the dirt from the shoes, sox and trousers to determine if the dirt was the same as the sample in the fruit jar. He said: "I ran the comparison of this dirt by microscopic observation and various methods and concluded the dirt was the same dirt." On cross-examination he amplified this somewhat by explaining that the dirt samples were first dried, "and the first test merely microscopic comparison in which the color and the particle size and texture of the particles were compared." He couldn't remember how the dirt was extracted from the shoes, sox and trousers for the test. He also tested the soil for density and found it the same. On re-direct examination he was allowed to testify that the probability that two soil samples would have the same color was one in ten, the same texture, one in one hundred, and the same density, one in a thousand, and "On random basis when you get two samples to match all these, it would be one in one million." On cross-examination, Dr. Matthews had testified that he had never done any work with the University of Arkansas with reference to soil testing, and when asked if he was familiar with the soil in Greene County, he testified, "I am really not familiar with any soil in Arkansas."

Appellant maintains that he is not urging that the witness "was incompetent or unqualified to make the comparison tests in question and to testify as to the points of similarity, but rather that in giving the objectionable testimony the witness departed from the field in which he was qualified as an expert and proceeded to engage in speculation and conjecture . . ." Dr. Matthews had made no tests on which he could reasonably base his probabilities of one in ten on soil color, one in one hundred on soil texture, or one in one thousand on soil density (which he multiplied together to obtain his one-in-one-million figure), nor did he base his testimony on studies of such tests made by others. He

admitted that his figures were predicated on "estimates" and "assumptions." In short, there is no foundation upon which to base his probabilities of one in a million.

"An expert witness' view as to probabilities is often helpful in the determination of questions involving matters of science or technical or skilled knowledge It is necessary, however, that the facts upon which the expert bases his opinion or conclusion permit reasonably accurate conclusions as distinguished from mere guess or conjecture To admit expert testimony deduced from a scientific principle or discovery, the thing from which the deduction is to be made must be sufficiently established to have gained general acceptance in the particular field in which it belongs." 20 Am. Jur., Evidence, § 795, p. 668.

Admission of the unsubstantiated, speculative testimony on probabilities was clearly erroneous. See *Little v. George Feed & Supply Co.*, 233 Ark. 78, 342 S. W. 2d 668; 2 Wharton's Criminal Evidence, § 505, p. 328 (12th ed. 1955).

Appellant also contends that the trial court erred in admitting the testimony of the sheriff, "who had associated with the jurors to such an extent as to make the admission of his testimony a deprivation of appellant's constitutional right to a fair and impartial trial and due process of law." Appellant urges that the sheriff had been so closely associated with the jury panel during the term of court that the jurors would give the sheriff's testimony undue weight. Examining the facts here in the light of *Turner v. Louisiana*, 379 U. S. 466, 13 L. Ed. 2d 424, 85 S. Ct. 546, on which appellant relies, we do not find the cases so closely analogous as to reflect the existence here of the evil sought to be corrected in *Turner*.

For the error in the admission of Dr. Matthews'

testimony concerning probabilities, the case is reversed
and the cause remanded for a new trial.
