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Worley v. State, 263 So. 2d 613 (Fla. 4th Dist. Ct. App. 1972)

CASE COMMENTS

Criminal Law—EVIDENCE—VOICEPRINTS ADMISSIBLE TO CORROBORATE TESTIMONY IDENTIFYING ACCUSED AS ONE WHO HAD MADE FALSE BOMB THREATS BY TELEPHONE.—*Worley v. State*, 263 So. 2d 613 (Fla. 4th Dist. Ct. App. 1972).

The police received two false bomb threats. They taped the two calls, traced the second one to a telephone booth and apprehended Joseph Worley nearby. The evidence against Worley consisted of fingerprint identification by means of prints found on the telephone, aural identification by the police officer who had received the calls and expert identification by means of a voiceprint.[1] The trial court admitted the voiceprint evidence; the defendant assigned this admission as error. The Fourth District Court of Appeal affirmed, holding that "voiceprints were properly admitted to corroborate defendant's identification by other means."[2]

The admissibility of aural identification by a lay witness is well established in Florida,[3] but, as the *Worley* court noted, the admissibility of voiceprint identification by an expert witness was a question of first impression in the state.[4] Historically Florida courts have admitted into evidence information obtained from innovative scientific processes.[5] Before the results of a scientific process can be admitted into evidence two criteria must be met: the process itself must be reliable

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1. Voiceprints, or voice spectrograms, are graphical records of vocal energy. Each person's voice pattern is determined by the size and shape of his vocal cavities (the mouth, throat cavity, and nasal cavities) and his articulators (the lips, teeth, tongue, soft palate, and jaw muscles). The theory of the voiceprint is that each person has a uniquely identifiable voice pattern because of the innumerable combinatorial interactions of different-sized vocal cavities and articulators. *See generally* Kamine, *The Voiceprint Technique: Its Structure and Reliability*. 6 SAN DIEGO L. REV. 213 (1969); Note, *The Admissibility of Voiceprint Evidence*, 14 S.D.L. REV. 129 (1969).

2. 263 So. 2d at 614.

3. *See, e.g.*, Riner v. State, 176 So. 38 (Fla. 1937), *aff'd on rehearing*, 179 So. 404 (Fla. 1938); Pennington v. State, 107 So. 331 (Fla. 1926); Mack v. State, 44 So. 706 (Fla. 1907); Weinshenker v. State, 223 So. 2d 561 (Fla. 3d Dist. Ct. App. 1969); Cason v. State, 211 So. 2d 604 (Fla. 2d Dist. Ct. App. 1968); Simon v. State, 209 So. 2d 682 (Fla. 3d Dist. Ct. App. 1968).

4. 263 So. 2d at 614.

5. *See, e.g.*, Odom v. State, 109 So. 2d 163 (Fla. 1959) (presence of sperm cells); Coco v. State, 62 So. 2d 892 (Fla. 1953) (fingerprints); Touchton v. State, 18 So. 2d 752 (Fla. 1944) (blood alcohol test); Williams v. State, 197 So. 562 (Fla. 1940) (blood-type matching test); Gulf Life Ins. Co. v. Stossell, 179 So. 163 (Fla. 1938) (motion picture film); Riner v. State, 176 So. 38 (Fla. 1937) (ballistics test); Hall v. State, 83 So. 513 (Fla. 1919) (photographs); Mann v. State, 22 Fla. 600 (1886) (footprints); Coppolino v. State, 223 So. 2d 68 (Fla. 2d Dist. Ct. App. 1968) (test to determine presence of drug previously thought undetectable); Gomien v. State, 172 So. 2d 511 (Fla. 3d Dist. Ct. App. 1965) (sound recordings).

enough to be evidentially competent,[6] and the identification witness who interprets the results must qualify as an expert.[7] The qualification of the expert witness is a case-by-case determination to be made by the trial court[8] once the scientific identification process has been judicially recognized as reliable.[9] The court in *Worley*, however, was concerned with the more basic issue of whether voiceprint evidence should be admitted at all.

The test for the quantum of reliability necessary before a scientific identification process can be admitted as competent evidence is usually stated to be whether the process is "sufficiently established to have gained general acceptance in the particular field in which it belongs."[10] The trial court had before it two experts in the field of voiceprint spectrography, Dr. Oscar Tosi[11] and Sergeant Ernest Nash.[12] Their credentials were never questioned by the trial or appellate courts. To support the reliability of voiceprints, Dr. Tosi and Sergeant Nash testified on controlled experiments with voiceprints conducted by themselves and others.[13]

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6. *See* Frye v. United States, 293 F. 1013 (D.C. Cir. 1923); Kaminski v. State, 63 So. 2d 339 (Fla. 1952); Coppolino v. State, 223 So. 2d 68 (Fla. 2d Dist. Ct. App. 1968); 2 B. JONES, EVIDENCE § 15.9 (6th ed. 1972).

7. *See, e.g.*, Fred Howland, Inc. v. Morris, 196 So. 472 (Fla. 1940). *See generally* 2 B. JONES, EVIDENCE § 14.12 (6th ed. 1972); 2 F. WHARTON, CRIMINAL EVIDENCE § 502 (12th ed. 1955).

8. *See* Fred Howland, Inc. v. Morris, 196 So. 472 (Fla. 1940); Harvey v. State, 176 So. 439 (Fla. 1937); Foster v. Thornton, 170 So. 459 (Fla. 1936); Atlantic Coast Line R.R. v. Dees, 48 So. 28 (Fla. 1908); Upchurch v. Barnes, 197 So. 2d 26 (Fla. 4th Dist. Ct. App. 1967).

9. *See* Coppolino v. State, 223 So. 2d 68, 70 (Fla. 2d Dist. Ct. App. 1968), *appeal dismissed*, 234 So. 2d 120 (Fla. 1969), *cert. denied*, 399 U.S. 927 (1970) (admission of blood test for poison), in which the court said:

> The general rule regarding admission of scientific evidence is: "Where the evidence is based solely upon scientific tests and experiments, it is essential that the reliability of the tests and results thereof shall be recognized and accepted by scientists or that the demonstration shall have passed from the stage of experimentation and uncertainty to that of reasonable demonstrability."

10. Frye v. United States, 293 F. 1013, 1014 (D.C. Cir. 1923). *See* Kaminski v. State, 63 So. 2d 339 (Fla. 1953).

11. Professor of Audiology and Speech Sciences, Michigan State University.

12. Voiceprint Unit, Michigan State Police Department.

13. 263 So. 2d at 614. Dr. Tosi and Sergeant Nash testified that in experimenting with more than 34,000 voiceprint comparisons, trained examiners had reliably matched voices in 98% of the cases. This figure does not mean, however, that voiceprints are accurate in 98% of *all* cases; it means that voiceprints are accurate in 98% of all cases of *positive identification*. In United States v. Raymond, 337 F. Supp. 641 (D.D.C. 1972), Dr. Tosi's experiments were explained as follows:

> While the total reported percentage of false identifications of an unknown speaker as a known speaker was approximately six percent, and the total percentage of failure to identify an unknown speaker as a known speaker was between ten and twelve percent, these figures do not reflect the full degree of reliability

The majority viewed the testimony of Dr. Tosi and Sergeant Nash in the light of the "only five previous appellate decisions nationally"[14] on the issue of voiceprint admissibility. Two cases, *State v. Cary*[15] and *People v. King*,[16] held voiceprints inadmissible because of a lack of proven scientific reliability. The other three cases, *State ex rel. Trimble v. Hedman*,[17] *United States v. Wright*,[18] and *United States v. Raymond*,[19] held voiceprints admissible on a limited basis. Emphasizing

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established. The examiners were compelled to draw a conclusion in each case, whether they felt that conclusion to be accurate or not. . . . [W]hen the cases in which an examiner expressed uncertainty . . . are deducted from the number of misidentifications, the margin of error is only about two percent. In an actual forensic situation, an experienced examiner like Lt. Nash will only make an identification when he feels a high degree of certainty. For example, out of some 1,250 examinations performed by Nash . . . [he] made only about 180 positive identifications, eliminated positively about 450 and would not make a definite decision in the remaining 620 some odd comparisons.

Id. at 643-44 (footnotes omitted).

14. 263 So. 2d at 614. There has, however, been one voiceprint case in Florida subsequent to the principal case. In Alea v. State, 265 So. 2d 96 (Fla. 3d Dist. Ct. App. 1972), the court held that it was not reversible error to admit voiceprints and expert testimony thereon when there is other substantial evidence to identify the accused as the perpetrator of the crime.

15. 239 A.2d 680 (N.J. Super. Ct. 1968), *remanded for further testimony*, 250 A.2d 15 (N.J. 1969), *aff'd*, 264 A.2d 209 (N.J. 1970). The superior court held voiceprints inadmissible at that time because they had not received "general scientific acceptance."

16. 72 Cal. Rptr. 478 (2d Dist. Ct. App. 1968). The court held that the admission of voiceprints was reversible error, saying that voiceprints had not been "accepted by the scientific community" and that the witness was not qualified as an expert. The witness, Lawrence Kersta, was the inventor of the voiceprint. The court said that the inventing of a machine that graphically records voices does not necessarily qualify the inventor as an interpreter of the graphs. *Id.* at 490.

17. 192 N.W.2d 432 (Minn. 1971). In determining whether voiceprints can provide probable cause for the issuance of arrest and search warrants, the court held that "spectrograms ought to be admissible for the purpose of corroborating voice identification by aural means if a sufficient foundation is laid . . . ." *Id.* at 441.

18. 37 C.M.R. 447 (U.S.C.M.A. 1967). The court remarked that "[c]ourts have consistently recognized the admissibility of the testimony of experts in areas where there is neither infallibility of result nor unanimity of opinion . . . ." *Id.* at 453. The court limited its holding by going on to say:

Here, the tape recording of one of the obscene calls and the recording of the test call made by the accused were both before the court-martial. Each was played in open court. Since voice identification by ear is fully acceptable in the courts, the court members could thus determine for themselves the margin of error, if any, in Mr. Kersta's expert opinion.

Id.

19. 337 F. Supp. 641 (D.D.C. 1972). After ruling that voiceprints are admissible, the court limited its holding to the facts of the case, saying:

[T]his Court does not imply that such evidence is mistake-proof or that *any* voice identification should be admitted. Our holding, based upon the complete record before the Court, relying especially on the latest scientific evidence and the expertise of the individual making the identification, is that the spectrographic

that the two adverse decisions were decided prior to many of the important voiceprint experiments,[20] the *Worley* court adopted the rationale of the three favorable precedents and hypothesized that "based on the changes in Dr. Tosi's testimony alone, *Cary* and *King* would be decided differently today."[21] The issue of whether voiceprints could be admitted as direct evidence[22] was not before the court because "the evidence against defendant was already ample to sustain his conviction, even without the use of voiceprints."[23] Therefore the decision must be viewed as admitting voiceprints for corroborative purposes only.[24]

In a concurring opinion Judge Mager argued that, because of its proven reliability, voiceprint identification should be admitted as direct evidence and that "voiceprint testimony should be no less admissible and no less credible than the testimony of a *lay* witness or victim who is permitted to make an identification from merely having heard the voice of the accused."[25]

Dissenting, Judge White argued that voiceprints had not yet reached a state of sufficient scientific reliability to be used as a safe "mode of proof in a criminal trial."[26] He expressed concern over the statistical validity of Dr. Tosi's experiments[27] and also over Dr. Tosi's

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identification of Albert Raymond was clearly reliable enough to be admitted into evidence.

Id. at 645.

20. *Compare* State *ex rel.* Trimble v. Hedman, 192 N.W.2d 432, 440 (Minn. 1971), stating that "[a]ll of the articles [challenging the reliability of the voiceprint] mentioned above were written and State v. Cary . . . [and] People v. King . . . were decided prior to the experiments conducted by Dr. Tosi."

21. 263 So. 2d at 614. In State v. Cary, 239 A.2d 680, 683 (N.J. Super. Ct. 1968), *remanded for further testimony*, 250 A.2d 15 (N.J. 1969), *aff'd*, 264 A.2d 209 (N.J. 1970), the court stated that Dr. Tosi "was of the opinion that the [voiceprint] technique has considerable potential as an aid to law enforcement, but before he would give a firm scientific opinion he felt that further experimentation and testing was required because of its infancy in the related scientific fields."

22. Direct evidence is "that which if believed proves the existence of the fact in issue without inference or presumption . . . ." 1 E. CONRAD, MODERN TRAIL EVIDENCE § 3, at 6-7 (1956). *See* Davis v. State, 90 So. 2d 629 (Fla. 1956).

23. 263 So. 2d at 614.

24. The court expressly limited its holding, stating: "The issues not being before us, we do not decide if voiceprint identification may be employed only for corroboration, or, if voiceprint identification, standing alone, would be sufficient to sustain the identification and conviction of the defendant." *Id.* at 614-15.

25. *Id.* at 616.

26. *Id.* at 618.

27. *Id.* at 617-18. Questioning the sufficiency of the size of Dr. Tosi's test sample, Judge White stated that "34,000 tests seem a rather negligible number to accept as proof that no two voices among 333 million [English-speaking] people are alike." *Id.* at 618.

testimony that a mimic might be able to "fool" a voiceprint.[28]

The specific holding in *Worley* has already been followed by another Florida court.[29] Assuming that voiceprinting techniques do not violate any constitutional[30] or statutory[31] prohibitions, this decision

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28. *Id.* at 618.

29. Alea v. State, 265 So. 2d 96 (Fla. 3d Dist. Ct. App. 1972). *See* note 14 *supra.*

30. No constitutional issue was before the court in *Worley*. A recent decision by the Supreme Court of the United States, United States v. Dionisio, 93 S. Ct. 764 (1973), precludes any possible fifth amendment attack—and severely circumscribes any possible fourth amendment attack—on the admissibility of voiceprints. In *Dionisio* twenty witnesses had been subpoenaed before an investigatory grand jury and had been requested to furnish voice exemplars. Some refused the request, asserting (1) that compelled submission to a voice exemplar test would violate their fifth amendment privilege against self-incrimination; (2) that the "dragnet effect" of summoning twenty persons to furnish voice exemplars was an impermissible "seizure" under the fourth amendment; and (3) that a voice exemplar test is a "search" within the meaning of the fourth amendment. Dionisio v. United States, 442 F.2d 276 (7th Cir. 1971).

By analogizing voice exemplars to physical characteristics such as fingerprints, stance, gait and handwriting the Court rejected the fifth amendment argument, and held:

> It has long been held that the compelled display of identifiable physical characteristics infringes no interest protected by the privilege against compulsory self-incrimination.
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> . . . .
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> *Wade* and *Gilbert* definitively refute any contention that the compelled production of voice exemplars in the case would violate the Fifth Amendment. The voice recordings were to be used solely to measure the physical properties of the witnesses' voices, not for the testimonial or communicative content of what was to be said.

93 S. Ct. at 767-68. *Accord,* People v. King, 72 Cal. Rptr. 478 (2d Dist. Ct. App. 1968); State *ex rel.* Trimble v. Hedman, 192 N.W.2d 432 (Minn. 1971); State v. Cary, 239 A.2d 680 (N.J. Super. Ct. 1968), *remanded for further testimony,* 250 A.2d 15 (N.J. 1969), *aff'd* 264 A.2d 209 (N.J. 1970). *See also* United States v. Mara, 93 S. Ct. 774 (1973); United States v. Wade, 388 U.S. 218 (1967); Gilbert v. California, 388 U.S. 263 (1967); State v. King, 209 A.2d 110 (N.J. 1965).

The *Dionisio* court also rejected the two fourth amendment arguments by holding that

> neither the summons to appear before the grand jury, nor its directive to make a voice recording infringed upon any interest protected by the Fourth Amendment, [and thus] there was no justification for requiring the grand jury to satisfy even the minimal requirements of "reasonableness" . . . .

93 S. Ct. at 772. *Accord,* United States v. Doe, 457 F.2d 895 (2d Cir. 1972). Thus *Dionisio* rejects any argument that a grand jury summons is to be tested by fourth amendment principles of probable cause or reasonableness, or that a voice exemplar constitutes a search. *But see* Davis v. Mississippi, 394 U.S. 721 (1969) (investigatory seizures by police for purposes of obtaining fingerprints are subject to the fourth amendment even though fingerprints themselves are not protected by that amendment); Hale v. Henkel, 201 U.S. 43 (1906) (overbroad subpoena *duces tecum* compelling production of books and papers may constitute an unreasonable search and seizure within the fourth amendment). *Cf.* Terry v. Ohio, 392 U.S. 1 (1968) (external pat down of clothes in a search); Schmerber v. California, 384 U.S. 757 (1966) (extraction of blood is a search).

After *Dionisio* the only sure avenue of fourth amendment attack on the admissibility of voiceprints would seem to be the case where the defendant was not in custody pursuant to a valid arrest or other valid compulsory process at the time he was voice-

signals the judicial recognition in Florida of a valuable scientific device which will aid in identifying the guilty while protecting the innocent.[32]

Constitutional Law — STATE TAXATION—AIRPORT USE TAXES IMPOSED ON DEPARTING COMMERCIAL AIRLINE PASSENGERS ONLY AS COMPENSATION FOR USE OF FACILITIES VIOLATE NO FEDERAL CONSTITUTIONAL PROVISIONS.—*Evansville-Vanderburgh Airport Authority Dist. v. Delta Airlines, Inc.*, 405 U.S. 707 (1972).

The rapid increase in private and commercial aviation operations[1] has necessitated concomitant airport development and expansion. One method of generating funds for these purposes is the so-called airport use tax. Prior to 1972, only Montana, New Hampshire, New Jersey and an Indiana airport authority district had actually imposed such taxes.[2] With slight variations, the tax in each instance took the

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printed. In such a situation the voiceprint could be excluded as the "fruit" of a constitutionally impermissible seizure. *See* Davis v. Mississippi, 394 U.S. 721 (1969); Wong Sun v. United States, 371 U.S. 471 (1963).

One possible result of *Dionisio* on the practice of voiceprinting may be that prosecutors will resort to grand jury process to compel the voiceprinting of a suspect in situations where there is no probable cause to arrest the suspect. Thus a prosecutor could obtain a desired voiceprint without running the risk of having the results excluded. *See* United States v. Mara, 93 S. Ct. 781, 789 (1973) (Marshall, J., dissenting in *Dionisio* and *Mara*).

31. No statutory violations were at issue in the principal case. But in the case of a surreptitious voiceprinting, obtained without the consent of the parties involved, FLA. STAT. § 934.01(4) (1971) may be relevant. It provides in part: "To safeguard the privacy of innocent persons, the interception of wire or oral communications when none of the parties to the communication has consented to the interception should be allowed only when authorized by a court of competent jurisdiction . . . ." *See generally* Alea v. State, 265 So. 2d 96 (Fla. 3d Dist. Ct. App. 1972).

32. In his concurring opinion, Judge Mager elaborated on the social policies favoring the admission of voiceprints as direct evidence: "Protecting society from those who have violated the law as well as protecting the one who has been unjustly accused serves to heighten the need for more sophisticated methods of crime prevention and crime detection." 263 So. 2d at 616.

1. An "operation" is defined as either a take-off or a landing. Commercial operations at airports with Federal Aviation Administration (FAA) control towers increased by approximately 33%, from 7,819,114 in 1965 to 10,393,294 in 1970. *See* AIR TRANSPORT ASS'N OF AMERICA, ANNUAL REPORT OF U.S. SCHEDULED AIRLINE INDUSTRY 21 (1971). In 1965, there were 26,572,650 general aviation operations and in 1970, 41,384,006—an increase of approximately 55%. *See id.*

2. Several other localities—for example, Los Angeles, California; Raleigh-Durham, North Carolina; Spokane County, Washington; and Hawaii—had proposed but had declined to adopt similar taxes. Four of the proposed taxes were rejected after legal