

IN THE COUNTY COURT OF THE  
SEVENTEENTH JUDICIAL CIRCUIT, IN  
AND FOR BROWARD COUNTY, FLORIDA.

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STATE OF FLORIDA,

vs.

No. 97-15471MM10A  
JUDGE LISA G. TRACHMAN

AMANDA BERNHARD,

Defendant.  
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Fort Lauderdale, Florida  
December 2, 1998  
9:15 a.m.

EXCERPT OF A TRIAL

The above-entitled cause came on for hearing before the Honorable LISA G. TRACHMAN, Presiding Judge, at the Broward County Courthouse, 201 Southeast Sixth Street, Courtroom 336, Fort Lauderdale, Florida 33301, on the 2nd day of December, 1998, at 9:15 a.m.

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APPEARANCES:

OFFICE OF THE STATE ATTORNEY  
By: TODD SPRINGER, CLI,  
ASSISTANT STATE ATTORNEY,  
appearing on behalf of the State of Florida

TED HOLLANDER, ESQUIRE,  
appearing on behalf of the Defendant

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<u>DEFENSE WITNESSES</u>	<u>DIRECT</u>	<u>CROSS</u>	<u>RE-DIRECT</u>	<u>RE-CROSS</u>
RICK SWOPE	5	33	41	42

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1  
2 THE COURT: Okay. Please be seated. And  
3 we are back on the record in the case of State  
4 of Florida versus Amanda Bernhard who is  
5 present here with counsel, the State is  
6 present, and the jurors are present. And now  
7 before you left, the State rested. So now we  
8 will call upon the defense.

9 First of all, you had reserved your  
10 opening. Did you wish to give an opening at  
11 this time?

12 MR. HOLLANDER: No, I don't, Judge.

13 THE COURT: All right. Then did you wish  
14 to call a witness?

15 MR. HOLLANDER: Yes, Judge. At this time  
16 the defense would call Rick Swope to the  
17 stand.

18 THE COURT: All right.

19 THE CLERK: Do you swear or affirm that  
20 the testimony you shall give in this case  
21 shall be the truth, the whole truth, and  
22 nothing but the truth?

23 THE WITNESS: I do.

24 THE CLERK: Please state your name for  
25 the record and spell your last name.

1 THE WITNESS: Rick Swope, S-W-O-P-E.

2 THE CLERK: Please be seated.

3 DIRECT EXAMINATION

4 Q. (By Mr. Hollander) Good afternoon, Mr.  
5 Swope.

6 A. Good afternoon.

7 Q. Mr. Swope, what do you do for a living?  
8 What do you do for employment?

9 A. I have my own company. I do primarily  
10 accident reconstruction. I also do some consulting  
11 in the field of alcohol testing with various breath  
12 machines. And also I do some testing and  
13 experiments with, you know, field-sobriety  
14 exercises. And I also taught in that field for  
15 about ten years.

16 Q. And what of those capacities, if not all  
17 of them, which ones do you specialize in?

18 A. Well, actually, I specialize in accident  
19 reconstruction. But I also specialize, as far as  
20 experimentations go, with breath-testing devices,  
21 primarily the intoxilyzer series. I work on all of  
22 these different types of models. There are  
23 actually three models.

24 Q. What kind of education have you received  
25 in order to be able to testify about these

1 particular subjects?

2 A. Well, I guess I will stick to the  
3 intoxilyzer and field-sobriety exercises. As a  
4 police officer for 15 years, the last six years I  
5 was an officer with the Broward County Sheriff's  
6 Office. Four of those six years I was the  
7 administrative coordinator of the DUI Task Force  
8 and traffic homicide unit.

9 I became an instructor for the National  
10 Highway Safety Administration, which is the federal  
11 government in late '85 or early '86, I don't  
12 recall. I became an instructor for the Florida  
13 Department of Law Enforcement in 1985.

14 I have a bachelor's degree in criminal  
15 justice. I have a master's of science degree in  
16 technology and engineering from the University of  
17 Miami. I also have a teaching certificate in the  
18 State of Florida. I have taught at various  
19 universities around the country.

20 I have taught in Florida, taught  
21 somewhere around 4,000 police officers. I have  
22 also done experimentations with the breath-testing  
23 devices. I initially learned the course from the  
24 state when I was a police officer.

25 And now I'm affiliated or associated with

1 a group of individuals primarily out of Minnesota  
2 and northern Florida that work with the intoxilyzer  
3 series machine. And we do experiments, we do  
4 blood, breath tests and correlations with the  
5 machine. We test all three of the models and we  
6 have written articles. I have written three  
7 myself.

8 And, then, I also assist others in doing  
9 experimentations and work. And I'm currently  
10 working with Florida National University on a grant  
11 that they have received to do experiments on the  
12 intoxilyzer. And I am actually doing the  
13 maintenance on the machine to make sure it meets  
14 the specifications of the grant.

15 Q. Of the things you just mentioned, you  
16 said that you have taught some classes, things of  
17 that nature. What kinds of classes have you  
18 taught?

19 MR. SPRINGER: Judge, the State will  
20 stipulate his being an expert with the  
21 intoxilyzer, if that will help?

22 MR. HOLLANDER: I would prefer the jury  
23 to hear about his qualifications, Judge.

24 THE COURT: Go ahead and answer the  
25 question.

1 THE WITNESS: I'm sorry?

2 Q. (By Mr. Hollander) You have taught some  
3 classes in regards to intoxilyzers, the  
4 maintenance, the use of the machines, the  
5 exercises, things of that nature. Can you explain  
6 some of the classes you have taught?

7 A. Well, besides police officers, I have  
8 taught classes to individuals that want to perform  
9 maintenance on the machine, meaning that they take  
10 it apart, put it back together, and try to repair  
11 it.

12 I've taught seminars for judges, lawyers,  
13 investigators, police officers from other states,  
14 and just individuals that, you know, that come and  
15 want to learn about the intoxilyzer for whatever  
16 reason.

17 Q. Now, you also mentioned that at some  
18 point in your career you worked for the Broward  
19 Sheriff's Office?

20 A. Yes.

21 Q. And what were the years, again, that you  
22 worked for them?

23 A. I worked for them from 1984 to, I think,  
24 August of 1990.

25 Q. And when you were the administrator or

1 working in the DUI Task Force, what, basically,  
2 were your responsibilities there?

3 A. Well, initially the responsibilities were  
4 to work with the DUI unit. There was a federal  
5 grant that the Sheriff's Office had received  
6 basically about the same time I was hired.

7 And the job for me at that time was to  
8 initiate the new breath machines which became the  
9 intoxilyzer series, put them into service, do  
10 videotaping, coming up with rules and regulations,  
11 policies, procedures, assisting in hiring people in  
12 the unit.

13 I did the budgeting work, bought the  
14 intoxilyzer, did maintenance, repaired them, those  
15 types of things. Initially just getting the unit  
16 together at that time.

17 Q. And what type of experience do you have  
18 with pharmacology and toxicology of alcohol?

19 A. Well, that would be in doing the testing  
20 with the machines. Actually, there is two  
21 different ways that we do that. One, is through  
22 dosing individuals. We have volunteers come in and  
23 we give them measured amounts of alcohol. We take  
24 blood from them and breath at various times.

25 And also from doing field-sobriety

1 exercises. Again, we dose people and we know the  
2 level of alcohol they have in their system because  
3 we actually give it to them. So we look for their  
4 actions. We put them through a series of  
5 exercises, sometimes even driving. We have even  
6 done that, have individuals drive on closed areas.

7 And then what we do is we take tests at  
8 various times with the intoxilyzer to see exactly  
9 when an individual reaches a certain level and when  
10 they either peak out and begin to dissipate  
11 alcohol. And the reason we do that is because we  
12 try to verify the formulas that we use  
13 mathematically to make sure we are either way off  
14 or sometimes the formulas are off. So that is what  
15 we do; we try to correlate them.

16 Q. And what kind of experience do you have  
17 with the Intoxilyzer 5000, and specifically the  
18 6400 series or the 64 series, I guess you could  
19 call it?

20 A. I think initially with putting that in  
21 service for the Sheriff's Office, I think there  
22 were four that we put in service at the time and we  
23 had the initial training from the factory. We  
24 initially received training from the factory in how  
25 to repair it, how to work with the machine. At

1 that time when we first started with the machines,  
2 we had a little bit different training than they do  
3 now. And also the state training that I received.

4 And then upon leaving the Sheriff's  
5 Office or getting ready to leave the Sheriff's  
6 Office, I began taking additional classes from  
7 other individuals, primarily Dr. Jensen (phonetic)  
8 out of Minnesota.

9 And then I got into this group that we do  
10 experiments with the machine. Then by taking it  
11 apart and learning about the machine, I actually  
12 got into it pretty in depth to write articles and  
13 experiments for the last few years.

14 Q. Have you ever been certified as an expert  
15 in regards of pharmacology and toxicology of  
16 alcohol?

17 A. Yes.

18 Q. Have you ever been certified as an expert  
19 with the Intoxilyzer 5000?

20 A. Yes.

21 Q. Have you ever been certified as an expert  
22 in regards to the physical-performance exercises, I  
23 guess we call them field-sobriety exercises?

24 A. Yes.

25 Q. And this, you have been certified in

1 Florida courts?

2 A. Yes, sir.

3 Q. As well as courts outside of Florida in  
4 other states?

5 A. Yes, sir.

6 Q. How many times have you been accepted as  
7 an expert in regards to the workings of the  
8 Intoxilyzer 5000?

9 A. Well, somewhere approaching 800 times  
10 now.

11 Q. Have you ever been, have you ever  
12 testified on behalf of the State?

13 A. Yes.

14 Q. Roughly how many times have you testified  
15 as a State witness?

16 A. Well, I would say somewhere in the  
17 neighborhood of 300 times when I was employed by  
18 the Sheriff's Office and, of course, the other  
19 police agencies.

20 MR. HOLLANDER: Judge, at this time, I  
21 would like to tender Mr. Swope as an expert in  
22 pharmacology of alcohol, and toxicology of  
23 alcohol, and in the Intoxilyzer 5000 and in  
24 the administration of field-sobriety  
25 exercises.

1 THE COURT: You want to ask him questions  
2 about these areas? Is that what you are  
3 saying?

4 MR. HOLLANDER: Yes, Judge.

5 THE COURT: State, do you have any  
6 objections?

7 MR. SPRINGER: No, Judge.

8 THE COURT: Okay. Go ahead.

9 Q. (By Mr. Hollander) First, Mr. Swope, at  
10 this point do you still sometimes work for  
11 government agencies?

12 A. Yes. Primarily civil, but I do work for  
13 a lot of government agencies.

14 Q. And sometimes on their behalf you come in  
15 and testify?

16 A. Sure.

17 Q. And do they pay you to testify?

18 A. Well, they pay me an hourly fee. I do  
19 bill the same whether it is defense or civil or  
20 whatever it is.

21 Q. And in this particular case my office  
22 paid you to review the documents, the videotape in  
23 the case, and to come in and testify to those facts  
24 today, correct?

25 A. Correct, yes.

1 Q. Have you had an opportunity to review the  
2 facts of this case, understand the timing of the  
3 tests and things of that nature in this particular  
4 case?

5 A. I believe so, yes, sir.

6 Q. And are you familiar with the Intoxilyzer  
7 5000 model, 64002, I think it is, 2486?

8 A. 2864.

9 Q. 2864?

10 A. Yes, sir.

11 Q. Are you familiar with that particular  
12 machine?

13 A. Yes. I'm familiar with that machine,  
14 yes.

15 Q. And how are you familiar with that  
16 machine?

17 A. I was the one who unpacked the machine  
18 along with Dave Fries. We put it into service  
19 together.

20 Q. Are those machines, the Intoxilyzer 5000,  
21 are they 100 percent accurate?

22 A. No.

23 Q. I would like to show you, if I could,  
24 some documents that have been entered into  
25 evidence.

1 MR. HOLLANDER: May I approach, Judge?

2 THE COURT: Sure.

3 MR. HOLLANDER: Just for the record, I am  
4 showing Mr. Swope each of the documents that  
5 has been entered into evidence in response to  
6 the breath tests.

7 THE COURT: All right.

8 MR. HOLLANDER: Okay.

9 THE COURT: Creslyn, did you give him all  
10 of them? I think you may have others there  
11 that might be the pace clock certificate and  
12 so on.

13 MR. HOLLANDER: I think I have all of  
14 them, Judge. Are there others?

15 THE COURT: Did you want to show him the  
16 pace clock certificate too or did you want to  
17 give that back?

18 MR. HOLLANDER: No, not that one, Judge.

19 MR. SPRINGER: The last one on the  
20 bottom.

21 THE COURT: Okay.

22 Q. (By Mr. Hollander) For the record, I  
23 have just shown the witness each of the documents  
24 the State has entered into evidence.

25 Mr. Swope, I would ask you, if you could,

1 please take a look at the maintenance documents,  
2 the two annual inspections, and the two monthly  
3 inspections that have been submitted by the State  
4 in this particular case. Do you see those  
5 documents I'm referring to?

6 A. Yes.

7 Q. And you see on the documents that there  
8 have been maintenance tests that have been done in  
9 an attempt to show that the machines are working in  
10 conformity with the FDLE rules. Do you see that?

11 A. Yes.

12 Q. Is there anything that strikes you as  
13 unusual about the way in which those tests have  
14 been done, and is there anything that could have  
15 been done better to ensure their reliability?

16 A. Yes.

17 Q. Could you expand on that, please?

18 A. Well, the officers conduct a monthly  
19 check of the machine by the use of a simulator  
20 vapor, a simulator that contains liquid. The  
21 simulator solution that they use is obtained from  
22 the State primarily the Florida Department of Law  
23 Enforcement or it could be obtained from Rouge  
24 Laboratories.

25 The simulator solution is meant to

1 simulate one's breath at a certain level. And the  
2 solution, however, is only mixed to the second  
3 decimal. In other words, it's only mixed to the  
4 hundredths. The machine reads to the thousandths.

5           And the requirements are that the State  
6 has to have a machine within five-thousandths or  
7 within 10 percent of the particular reading.  
8 Because they're solution is only to the second  
9 digit and the reading is to the third, the machine  
10 could be outside of compliance. In other words, it  
11 could be the error could be greater than a .005 and  
12 the operator wouldn't know.

13           And the reason is is because the machine  
14 has a tolerance level -- and some call it  
15 reliability, I call it tolerance -- that the  
16 machine can actually be off .005 by itself and  
17 that's the closest that it could be as far as a  
18 numerical value goes.

19           If the simulator solution is also off, in  
20 other words, if the simulator solution is off say  
21 low and the machine is off high, it could actually  
22 read together and bring it more into compliance and  
23 the operator wouldn't know that because the problem  
24 is you're testing an unknown solution against an  
25 unknown number.

1           So you're already starting out bad. And  
2 even though you may be off a little bit, the fact  
3 is you don't really know if the machine is in  
4 compliance or not. There is actually a way you can  
5 correct that, but that's not the way that we do it  
6 at this point.

7           Q.    What is the way they could correct that?

8           A.    Well, the way to correct it would be with  
9 a control sample. Actually, the State form has it  
10 on it, the form that you submitted here. I guess  
11 this is A-5. It's on the back of the form 14. And  
12 it lists on the back that there is a -- if the  
13 control test is run, it gives you the information.

14                   And the control test would be the best  
15 way to ensure that the machine is operating at all  
16 times. We use it in the lab all the time when we  
17 run experiments because that way, if our machine is  
18 outside of compliance or outside of our testing  
19 parameters, we know it immediately, not 30 days  
20 later or before.

21           Q.    You may have just answered the question.  
22 But is that what a control test is what you just  
23 talked about?

24           A.    Yes. It is just a controlled sample  
25 where you have a solution mixed up that stays on

1 the machine all the time. In other words, every  
2 time the machine runs a test, in between the next  
3 sample is run a control test.

4 So if there is a problem, the operator  
5 knows at that time and not 30 days later or 10 days  
6 later or somewhere down the road. But, again, the  
7 simulator solution is kind of off and they don't  
8 know that.

9 Q. Are there certain things that can affect  
10 a breath reading such as a person's body  
11 temperature?

12 A. It can, yes.

13 Q. What about something called partition  
14 ratios? Can that have an affect on the way in  
15 which the Breathalyzer machine reads?

16 A. It can, yes.

17 Q. Can you explain a little bit how a  
18 partition ratio is relevant to a breath case and  
19 how that can make a breath test vary?

20 A. Well, the reason is is that the machine  
21 is really only a conversion unit. In other words,  
22 even though the printout that you see on the card  
23 is basically a software printout, in other words,  
24 the card can read whatever. And I'm not saying the  
25 number will print out whatever I am saying, but any

1 information on the card can be programmed to read  
2 out such as name, date, those types of things.

3 And what you get on the card is what is  
4 called grams per 210 liters of breath. Well, what  
5 is on your breath doesn't impair you. What is in  
6 your blood system impairs you.

7 And the example of that would be if I  
8 drank something right now, but I didn't swallow it  
9 and I spit it out, well, my breath would have  
10 alcohol on it but it's not in my system. So it  
11 wouldn't affect me. I would be fine. It is just  
12 like using mouthwash in the morning or something  
13 like that you are still fine. It doesn't get in  
14 your system. You don't swallow it.

15 What is in your blood causes you to lose  
16 your vision, affects your judgment, affects your  
17 balance, those types of things. So the machine  
18 really is a step removed from the actual blood  
19 test. It converts what is in your breath to a  
20 blood sample, but it read out in grams per 210  
21 liters by breath. But you are still actually  
22 getting a blood reading even though the requirement  
23 is a breath reading.

24 MR. SPRINGER: Judge, I am going to  
25 object to relevance.

1 THE COURT: Overruled.

2 Q. (By Mr. Hollander) So that partition  
3 ratio that you just explained, basically what  
4 you're saying is that the breath machine presumes  
5 that the person taking the test has the 2100 to 1  
6 ratio?

7 A. That is correct. There's a fixed ratio  
8 in the machine and the machine assumes everyone who  
9 blows into it is the same.

10 Q. And, in fact, that isn't true?

11 A. No, it isn't.

12 Q. Okay. And have you ever heard of a  
13 gentleman named Dr. Dubowski?

14 A. Yes.

15 Q. And could you explain to the jury who Dr.  
16 Dubowski is?

17 A. Dr. Dubowski is an expert in dealing with  
18 breath-alcohol testing. He was an employee of the  
19 federal government for, I guess, maybe 15 years,  
20 did various experiments. He has been conducting  
21 breath testing for, I think, about 45 years,  
22 somewhere in that ballpark.

23 Q. Is there more than that?

24 A. He is just, basically, kind of like "the"  
25 person, so to speak. That is who you would call if

1 you wanted to go to so-called one of the best  
2 people.

3 Q. Based upon Dr. D's studies and what you  
4 have heard and learned from yourself and studies  
5 you have conducted yourself, what is the range that  
6 a partition ratio can actually go from as opposed  
7 to the presumption of 2100 to 1?

8 A. Well, it can go primarily from 1300 to  
9 2600. And really what that means is, if someone's  
10 breath-alcohol level is on the way up, the reading  
11 that you get is artificially high, and whatever  
12 reading you get on the card is artificially a high  
13 range. If they are on the way down, the reading is  
14 artificially low. So it's like, depending where  
15 you are at on the scale, you're either higher or  
16 lower than what the card shows.

17 Q. So if somebody was to take a breath test  
18 and hypothetically had a lower partition ratio than  
19 2100 to 1, the breath that comes out on the card  
20 could be higher than the actual level?

21 A. Could be inflated at that time, yes.

22 Q. Are there other things, other than body  
23 temperatures and partition ratios, that can affect  
24 the breath readings?

25 A. Well, there are other things that can

1 affect it. There are such as the radio  
2 frequencies, although the machine in most cases  
3 will let the operator know that.

4 There's also mouth alcohol that can  
5 affect it. The machine does have a detector on it  
6 which at times can alert the operator. Maintenance  
7 of the machine. There could be some other things,  
8 as far as diagnostics go that could affect a  
9 reading.

10 However, in most cases the machine will  
11 inform the operator that there is a problem. In  
12 some cases it won't, but in many cases it will.

13 Q. Briefly back to the maintenance  
14 documents. Because each of the tests, according to  
15 the State and the people that conducted these  
16 particular tests, says that they're in conformity  
17 with these FDLE rules. Is that conclusive proof to  
18 you that the reading that shows up on the card is  
19 the exact reading?

20 A. No.

21 Q. Okay. And why do you say that? Because  
22 of the variance we have talked about and these  
23 other factors?

24 A. Well, again --

25 MR. SPRINGER: Objection. Leading, your

1 Honor.

2 THE COURT: Sustained.

3 Q. (By Mr. Hollander) I will leave it to  
4 the first part of the question. Based upon the  
5 fact that they all are in conformity, that does not  
6 mean to you that it is exact. Would you explain  
7 why?

8 MR. SPRINGER: Objection. Leading,  
9 again, your Honor.

10 THE COURT: Sustained. Although, I think  
11 that question was already asked and answered.

12 MR. HOLLANDER: It was. But the question  
13 of why I haven't had a chance to ask.

14 Q. (By Mr. Hollander) So why is that, Mr.  
15 Swope?

16 A. Again, it is because of the differences,  
17 the partition ratios, the other factors that I told  
18 the jury could affect a particular reading on a  
19 machine at a particular point in time.

20 Q. Mr. Swope, is the timing of the test in  
21 regard to when a person was driving as opposed to  
22 when the first breath test is taken, is that period  
23 of time in between those two periods of time, is  
24 that important in the reading, in the breath  
25 reading?

1 A. Yes, sir.

2 Q. And can you explain -- I guess, first  
3 off, have you heard of something called absorption?

4 A. Yes.

5 Q. Can you explain to the jury, basically,  
6 what absorption is?

7 A. Well, absorption it is really just the  
8 alcohol that's in your system and how long it takes  
9 to actually enter your systems. It is eliminated  
10 at some period of time. But absorption, again, if  
11 I took a drink right now, would take a certain  
12 amount of time for it to actually get in my system  
13 and to be absorbed into my bloodstream, and that  
14 could take as short of a time as 15 minutes, take  
15 as long as 114 minutes, depending on what I have in  
16 my stomach, foods, other things like that.

17 Q. So recent consumption of food can have an  
18 effect in the slowing of this absorption period?

19 A. That is correct.

20 Q. And absorption in a particular person  
21 differs. For example, your absorption would be  
22 different than mine?

23 A. Right. In most cases, yes, sir.

24 Q. And that's based on what?

25 A. Well, it's based on weight. Could be

1 based on sex. Woman tend to absorb alcohol  
2 somewhat quicker than men do. Also they tend to  
3 eliminate it also faster. Activities. If you're  
4 doing some type of strenuous activity, alcohol  
5 could be absorbed quicker. But your weight is the  
6 big factor.

7 Q. I would like to ask --

8 THE COURT: Can I ask a question? How  
9 does weight play a factor? In what way is it  
10 a factor?

11 THE WITNESS: Normally individuals who  
12 are very thin, alcohol is absorbed much  
13 quicker in their system. People who tend to  
14 be overweight, it takes a longer period of  
15 time for alcohol to actually enter their  
16 system to be absorbed. Usually the metabolism  
17 in heavier people is slower than someone who  
18 is thin or of average weight.

19 THE COURT: And are we still talking  
20 about 15 to 114 minute range or --

21 THE WITNESS: Yes.

22 THE COURT: -- or when you're talking  
23 about a slower or quicker absorption, are we  
24 going outside of those ranges?

25 THE WITNESS: Well, you're staying