1	UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF GEORGIA	
2		AINESVILLE DIVISION
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5	UNITED STATES OF AMERICA,	. Docket No. 2:02-CR-038
6	Plaintiff,	•
7	V.	Gainesville, GeorgiaNovember 21st, 2003
8	WILLIAM EMMETT LECROY, JF	. 10:00 o'clock a.m.
9	Defendant	•
10		
11	VOLUME III	
12	CONTINUATION OF TRANSCRIPT OF PROCEEDINGS BEFORE THE HONORABLE SUSAN S. COLE, UNITED STATES MAGISTRATE.	
13	SUSAN S. C	COLE, UNITED STATES PAGISTRATE.
14	APPEARANCES:	
15		OFFICE OF THE UNITED STATES ATTORNEY RUSSELL G. VINEYARD, AUSA
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17		
18	For the Defendant:	FEDERAL DEFENDER PROGRAM STEPHANIE KEARNS,
19		CHIEF FEDERAL PUBLIC DEFENDER
20		PAUL KISH, ASSISTANT FEDERAL PUBLIC DEFENDER
21		ASSISIANI FEDERAL PUBLIC DEFENDER
22	Court Reporter:	Donna C. Keeble, RMR, CRR 1959 U.S. Courthouse
23		Atlanta, Georgia 30303-3361 (404) 215-1383
24	D 11	
25	Proceedings reported by machine shorthand, transcript produced by computer-aided transcription.	

1 (Following proceedings were had in open court on November

- 2 21st, 2003, in open court.)
- 3 (Defendant LeCroy present.)
- 4 THE COURT: The next matter we will take up is the
- 5 resumption of the Daubert hearing in the United States versus
- 6 William Emmett LeCroy. It is case number 2:02-CR-038, and I'll
- 7 ask that counsel please identify themselves for the record.
- 8 MR. VINEYARD: Russell Vineyard, on behalf of the
- 9 United States.
- 10 THE COURT: Mr. Vineyard, good morning.
- 11 MR. KISH: Judge, Paul Kish, a decreasing number of
- 12 defense counsel, just me and Stephanie Kearns here this morning
- on behalf of Mr. LeCroy.
- 14 THE COURT: All right. And let the record reflect
- 15 that Mr. LeCroy is seated next to his counsel as well.
- 16 All right. Mr. Vineyard, are you ready to proceed?
- 17 MR. VINEYARD: Yes, Your Honor. The government calls
- 18 Dr. Moshe Kam.
- 19 THE DEPUTY CLERK: Please step into the witness
- 20 stand; raise your right hand.
- 21 MOSHE KAM, GOVERNMENT WITNESS, SWORN
- 22 THE DEPUTY CLERK: Please be seated and state your
- 23 full name for the record.
- 24 THE WITNESS: Thank you. My name is Moshe Kam,
- 25 M-o-s-h-e; K-a-m.

1 DIRECT EXAMINATION

- 2 BY MR. VINEYARD:
- 3 Q. How are you employed, Mr. Kam?
- 4 A. I am a professor of electrical and computer engineering at
- 5 Drexel University in Philadelphia, Pennsylvania.
- 6 Q. And do you hold a Ph.D.?
- 7 A. I hold a Ph.D., which I received from Drexel University in
- 8 1987, I think. Yeah.
- 9 Q. And how long have you held your current position at
- 10 Drexel?
- 11 A. Since 1986. I was employed by there as a -- at the
- 12 beginning, as a research assistant professor and, now, I'm a
- 13 full professor.
- 14 Q. A tenured professor?
- 15 A. I am a tenured professor, yeah.
- 16 Q. Sir, if you would, summarize for us your educational
- 17 background.
- 18 A. My undergraduate studies were taken at Tel Aviv University
- 19 in the area of electrical and electronics engineering, with
- 20 emphasis on communication in statistical and detection theory.
- 21 My master of science was taken at Drexel University
- 22 between 1983 and 1985 and was mostly on statistical
- 23 communication theory. And my Ph.D. studies are between 1985
- 24 and 1987, mostly on statistical communication theory as well.
- 25 Q. Okay. And, Dr. Kam, what are your duties at Drexel; what

- 1 do you do there?
- 2 A. My duties at Drexel are divided between three major
- 3 tasks: In the area of education, I'm the coordinator of
- 4 education for sophomore students in the college of engineering,
- 5 and I also teach there myself.
- 6 I head the research lab, which has about 20 graduate
- 7 students who work on various research projects, and I also have
- 8 a duty as the director of the National Security Agency Center
- 9 of Excellence and Information Assurance Education -- it's a
- 10 long name, but that's what it is -- at Drexel University. So I
- 11 have education and duties, teaching duties, and research
- 12 duties, including the guidance of graduate students.
- 13 Q. Okay. And what areas do you conduct research, sir?
- 14 A. Most of the work that I do is in detection, estimation,
- 15 pattern recognition, some work in forensic pattern recognition,
- 16 robotics and control.
- 17 Q. Okay. I want to ask you about pattern recognition; what
- 18 is pattern recognition?
- 19 A. Pattern recognition is the art and science of studying how
- 20 humans and machines are looking at environments, for example,
- 21 visual environments like the one that we have here, recognize
- 22 patterns and process patterns. So for instance, a question in
- 23 pattern recognition may be, in cognitive pattern recognition
- 24 would be how does a human being recognize another human being,
- 25 and a question which has relevance to automation is whether,

- 1 for instance, we can install a face recognition system here
- 2 that will tell us who is in the room right now, so issues of
- 3 this nature.
- 4 Most of my work in this area was, on one hand, on
- 5 pattern recognition in handwriting and, on the other hand, on
- 6 visual pattern -- visual pattern recognition by mobile robots.
- 7 So these are the two main areas in pattern recognition that I
- 8 specifically have been working on.
- 9 Q. Okay. And how about signal processing, is that a part of
- 10 pattern recognition?
- 11 A. Pattern recognition, in fact, is a subset of signal
- 12 processing. Signal processing is the general science, whereas
- 13 humans, animals and machines are taking signals in general and
- 14 filtering them.
- 15 Signal processing encompasses pattern recognition in
- 16 the sense that pattern recognition also does these things in
- 17 the more narrow area of pattern -- you know, of pattern
- 18 recognition and processing.
- 19 Q. Okay. Sir, have you also studied the area of statistics
- 20 and probability?
- 21 A. I have had -- I would say I would have extensive education
- 22 there. First of all, this was my concentration as an
- 23 undergraduate. I spend most of my studies as a master of
- 24 science student in this area, and I've taken classes both in
- 25 engineering departments and in the mathematics department in

- 1 this area.
- 2 I also was what was almost a co-advisor from the math
- 3 department in these areas, and my Ph.D. dissertation is almost
- 4 entirely devoted to issues that relate to statistics. So I
- 5 have -- I have the -- at least, the background.
- 6 However, I'm more in the area of applying statistics,
- 7 I'm not doing pure mathematical research in statistics myself.
- 8 Q. And, sir, do you publish papers from your research?
- 9 A. I publish quite extensively. I don't have the exact
- 10 count, but I think that it's probably fair to say that I have
- 11 about 35 peer-reviewed journal manuscripts in print or accepted
- 12 for publication and easily more than 100 conference
- 13 presentations and conference papers.
- 14 Q. Okay. And, sir, when you refer to a peer review journal,
- 15 what is a peer review journal?
- 16 A. Peer review journals are a type of publications; they
- 17 usually are published by learned societies. And what
- 18 distinguishes them from, say, conference proceedings is that
- 19 they go through rather rigorous and often an anonymous process,
- 20 whereby a paper that one sends in is sent to experts in the
- 21 field, these experts provide feedback on the paper, and based
- 22 on the feedback, the author is either told that the paper is no
- 23 good or that the paper, in very rare instances, is just good as
- 24 is. And in most cases, the reviewers ask questions, request

- 1 through several rounds -- eventually, the paper is published.
- 2 And those places that are known as good peer review
- 3 journals, in a way, give you a stamp of approval. It doesn't
- 4 mean the published papers cannot have mistakes in them, but
- 5 there is a certain degree of quality control that goes along
- 6 with peer review journals.
- 7 Q. And what are some journals in which you have published
- 8 some, peer review journals in which you've published, sir?
- 9 A. If you will look at the list of places where I've
- 10 published, you will see that most of them have IEEE in front of
- 11 the name of the journals, and most of the work that I have done
- 12 was published in different transactions in journals of The
- 13 Institute of Electrical and Electronics Engineers, which by
- 14 now, I would say has expanded well beyond the original
- 15 electrical and electronics engineering mandate.
- 16 In addition to that, I've published in other journals
- 17 and magazines. The one that perhaps is most relevant to the
- 18 hearing today is The Journal of Forensic Sciences, but also in
- 19 others, I have a paper coming out in information fusion, a
- 20 paper in automatica, quite a few journals which are known to be
- 21 peer review journals.
- 22 Q. Okay. And, sir, for purposes of your testimony today,
- 23 have you compiled your CV as well as certain relevant articles?

- 24 A. I have prepared a compilation which has my five major
- 25 papers that were published in The Journal of Forensic Sciences,

- 1 I believe, since 1994, including the last one that just came
- 2 out this month in The Journal of Forensic Science, one to five
- 3 in this booklet, and I also appended my resume at the end.
- 4 Q. Let me show you what's marked for identification as
- 5 Government's Exhibit 27 and ask if that's the document you just
- 6 described?
- 7 A. That's what I did, yeah.
- 8 Q. Okay. And in the back of this document marked Government
- 9 Exhibit 27 is a list of your CV?
- 10 A. Yes, it is, there is.
- 11 Q. And is it a fair and accurate summary of your
- 12 qualifications?
- 13 A. I believe so, yes.
- 14 MR. VINEYARD: Your Honor, I tender Government
- 15 Exhibit 27.
- 16 THE COURT: Any objection?
- 17 MR. KISH: No, no objection.
- 18 THE COURT: Twenty-seven is admitted.
- 19 BY MR. VINEYARD:
- 20 Q. Dr. Kam, have you ever been qualified to testify as an
- 21 expert in federal court?
- 22 A. Yes. I don't have the exact number of times but I -- I

- 23 think that I've testified something like 10 or 11 or 12 times,
- 24 in that order, and I've testified in Daubert hearings and in
- 25 certain several cases, also in front of a jury.

- 1 Q. Okay. And in what field have you been qualified as an
- 2 expert to testify in court?
- 3 A. I believe that I was offered as an expert on pattern
- 4 recognition and on proficiency of forensic document
- 5 examination.
- 6 MR. VINEYARD: Your Honor, we have not followed this
- 7 procedure in these proceedings, but I obviously would tender
- 8 Dr. Kam as an expert in this field, for purposes of his
- 9 testimony today.
- 10 THE COURT: Mr. Kish?
- 11 MR. KISH: I have no objection to that for purposes
- 12 of this hearing, Judge.
- 13 THE COURT: All right.
- 14 BY MR. VINEYARD:
- 15 Q. Now, Dr. Kam, you have identified certain articles that
- 16 you have published in The Journal of Forensic Sciences; how did
- 17 you enter the field of testing forensic document examiners?
- 18 A. By chance. I was working -- let me explain.
- 19 In 1989, I believe, or maybe 1988, there was a
- 20 request for proposals from the FBI to assist the FBI in
- 21 database work, and the database work was primarily geared

- 22 towards finding patterns in handwritten documents that were in
- 23 the database of bank robbery notes.
- 24 As I was working with that, I started getting
- 25 information from document examiners who worked for the Bureau,

- 1 and the question arose in my research, in fact, the question of
- 2 a graduate student, as to why are we talking to these people,
- 3 do we know that they are giving us information that is useful.
- 4 And my reaction was to send the student to the library to bring
- 5 in the evidence. And he brought back a paper by Risenger,
- 6 Denbeaux and Saks, the famous exorcism paper, which actually
- 7 excoriated the area of forensic document examination and
- 8 claimed that there are no good studies that actually show that
- 9 document examiners can do what they say they do.
- 10 And we did some of our own research and we came to
- 11 the conclusion that whereas I did not agree with many of the
- 12 statements in the exorcism paper, the basic premise that we
- don't have good tests of document examiners, especially, good
- 14 controlled tests. And by that, I mean that the same test was
- 15 given to forensic document examiners and to lay persons and you
- 16 saw whether there was a difference and what is the difference,
- 17 I agreed to that.
- 18 So I decided to do one. At the beginning, at the
- 19 beginning, it was almost like an intellectual curiosity. I
- 20 asked the person who worked with me at the FBI to allow me, as

- 21 part of this project without extra funding, just go ahead and
- 22 give me access to several FBI document examiners, we will have
- 23 a test, we will test some lay persons -- I selected graduate
- 24 students at Drexel University -- we will get a feel as to
- 25 whether there is a real difference between what document

- 1 examiners can do and what lay persons could do.
- 2 So I did this test and I had the data and it was
- 3 interesting data, so I published it in 1994 in The Journal of
- 4 Forensic Science. I assumed that that was it; I assumed that
- 5 $\,$ I've done this study and I'm moving to other things, and then I
- 6 realized that this article was quoted quite heavily in a case
- 7 in New York, the Stazik Bizell case (phonetic), and it became
- 8 clear that there was interest in this kind of work and need for
- 9 this kind of work, so I continued. And I have continued ever
- 10 since.
- 11 In other words, it's not the major thing that my lab
- 12 does, but my lab continually since that time has been doing
- 13 proficiency tests when we were able to get, you know, funding
- 14 to do such tests.
- 15 Q. Okay. You've mentioned the exorcism article from 1989.
- 16 Did it include any discussion of testing that was in existence
- 17 at that time?
- 18 A. Yeah. That article, first of all, described a study by
- 19 Professor Inbau, I-n-b-a-u, from, I believe, Northwestern

- 20 University, published in 1939. And this was, I think, the
- 21 first time in history that someone had done anything in this
- 22 area.
- 23 But they criticized Inbau quite severely, and I
- 24 agreed with everything that they said. I got the Inbau --
- 25 okay -- and it was very, very -- it was done on the fly, it was

- 1 done almost in an amateurish way.
- 2 Then, they quoted a number of studies of The Forensic
- 3 Science Foundation, and it was at that point that I started
- 4 disagreeing with what is an exorcism, because I got hold of the
- 5 exorcist studies. And in the exorcism, there is a $\operatorname{\mathsf{--}}$ I would
- 6 say there is like an ambivalent view towards the exorcism
- 7 study.
- 8 On the one hand, exorcism says they are not done very
- 9 well, and on the other hand, they do compilation of statistics
- 10 from these studies, so I started looking at these studies. My
- 11 conclusion was almost immediately that these studies have no
- 12 bearing on the issue of proficiency of forensic document
- 13 examiners.
- 14 There is a variety of reasons for that. Among them
- 15 was the fact that they were sent by mail, that we didn't know
- 16 who are the people who took them, that it became quite evident
- 17 after a while that foreign laboratories, including laboratories
- 18 in countries where English is not the first language, bought

- 19 them and returned them, that there was no control over who was
- 20 the individual in a certain lab who took them, for example, did
- 21 a novice take them, did a trainee take them.
- 22 I'm not saying that this happened, except that there
- 23 was no way to guarantee that this has not happened, so there
- 24 were huge questions about the origin of these.
- 25 Another issue that jumped out right away was the use

- 1 of photocopies. When I was at the FBI, it was almost a tenet
- 2 of fate or faith that working with photocopies is very
- 3 questionable, that you really cannot provide a qualified -- not
- 4 that always you can provide qualified, but you certainly cannot
- 5 provide, at least many people in the FBI very strongly held
- 6 this opinion and actually had references to the literature and
- 7 so on, that you cannot really work with photocopied documents.
- 8 And by necessity, the exorcist {sic} studies mostly sent
- 9 information out by photocopy.
- 10 Finally, none of these tests was given at the same
- 11 time to a control group, so we have no idea how document
- 12 examiners did with respect to the group of laypersons. So my
- 13 conclusion was that I don't want to touch these tests with a
- 14 ten-foot pole.
- 15 And it's real anecdotal, but I also tried to get one,
- 16 $\,$ to buy one, and it was interesting that as soon as I said that
- 17 I'm from a university and I'm not a document examiner and my

- 18 lab doesn't do document examination, they quoted a price, in
- 19 other words, I could buy this thing.
- 20 So I became quite -- I decided that I'm not going to
- 21 do any more with this data and there is a need to actually do
- 22 independent controlled testing, the way the testing ought to be
- 23 done. So my conclusion from exorcism was that they are right,
- 24 we don't have the data, but I didn't think that the exorcist
- 25 studies {sic} added much to what we know about document

- 1 examination.
- 2 Q. And are you familiar with the percentage figure that the
- 3 authors of exorcism included from those FFS studies?
- 4 A. Well, there are statements there on 57 percent versus 43
- 5 percent and things of this nature. As I told you, I did not
- 6 find these things to be terribly helpful. They were -- they
- 7 were compiling together tests that have been done on different
- 8 issues in different years, again, with methods that were
- 9 un-tested, with populations that were not specified. I just --
- 10 I just decided to stay away from FSF completely and do my own
- 11 studies.
- 12 Q. Is there a particular problem when you combine different
- 13 tests that are testing different features and try to arrive at
- 14 a percentage figure?
- 15 A. This area of matter analysis is somewhat controversial,
- 16 because of the fact that there are quite a few papers in the

- 17 literature that try to do matter analysis, try to go through
- 18 many studies and combine them together.
- 19 The reason that this is difficult is because you have
- 20 to make sure that you're really comparing apples with apples,
- 21 that you bring together things that are the same, and I think
- 22 this is a very hard task.
- 23 In the case of the aggregation of document
- 24 examination, there is another issue which is not taken up in
- 25 exorcism at all, and that is that when you weigh in error

- 1 rates, you should weigh them in according to the probability
- 2 that these tasks are actually being performed.
- 3 So, for instance, if document examiners are excellent
- 4 in a task that is almost never done, it should be weighed very
- 5 lightly because of the fact that this is not a very common
- 6 thing that's being -- so I thought that doing a matter analysis
- 7 of -- well, I didn't think the exorcism studies amounted to
- 8 much anyway, and matter analysis on the exorcist studies, I
- 9 didn't think would give much.
- 10 So honestly, I kind of skipped this part in the sense
- 11 that I realized what's in there, and my conclusion quite firmly
- 12 was in 1992 or 1993, when I did that, was that we are in a
- 13 situation that we have to start doing serious work. And in
- 14 this respect, exorcism I think made a positive contribution; it
- 15 told us that we needed to do the work. I disagree with all of

- 16 the rest of it, with the analysis of the work that was done up
- 17 to that point.
- 18 Q. Now, Dr. Kam, you mentioned that you conducted a study,
- 19 that first study. Was that described as a pilot? Would you
- 20 describe that as a pilot?
- 21 A. It was a pilot study, and it was a pilot study in the
- 22 sense of, first of all, it was small, seven document examiners
- 23 and ten laypersons.
- 24 And also since it was the first time, really, that
- 25 something like that was done correctly or at least according to

- 1 accepted methods, what I wanted to do is to get the feel, first
- of all. After that, I wanted to put it out, and I wanted,
- 3 actually, to draw fire. In other words, I wanted to hear from
- 4 everybody what needs to be done to make it better.
- 5 And I heard a lot. And I used what I heard in order
- 6 to design what I thought, and still think, was a much better
- 7 test which would be closer to the actual tasks that are being
- 8 performed by forensic document examiners.
- 9 Q. In fact, did you publish the results of your first study,
- 10 the pilot study?
- 11 A. Yes.
- 12 Q. And is that reflected in Government's Exhibit 27?
- 13 A. Yes. It is the second paper in exhibit 27, "Proficiency
- 14 of Professional Document Examiners in Writer Identification,"

- 15 by myself, Wetstein and Conn.
- 16 Q. And, sir, what were your findings in that pilot study?
- 17 A. If I'm allowed, I will tell you what was the task first.
- 18 Q. Yes, please.
- 19 A. So if you came to the test, I gave you 86 documents. I
- 20 gave you a pile of 86 documents, and the reason I did that is I
- 21 modeled that after things that I saw FBI agents do in large
- 22 cases of alleged fraud when they have, for example, a large
- 23 number of checks. So the case comes in and there is a pile of
- 24 checks or, in this case, it was a pile of documents
- 25 (indicating). And in these 86 documents, there were 20 writers

- 1 represented. I knew that, but not the people who took the
- 2 test. And I told them, "Look, what I need you to do is to take
- 3 these 86 documents and put them in piles such that every pile
- 4 has a specimen of the handwriting of one and only one person,
- 5 and such that no one person appears in two piles either by
- 6 himself or with others. "So, every writer, I need X piles" --
- 7 I didn't tell them how many, I knew I needed 20 -- "give me X
- 8 piles, and in each pile is one author and one author only."
- 9 So I gave this task to the FBI examiners and I gave
- 10 this task to ten graduate students at Drexel. And there are
- 11 two kinds of errors that you can make here: There is one which
- 12 is over-refinement; in other words, you can take one author and
- 13 you declare, put this author in two piles, and that's bad. But

- 14 it's not as bad, I think, as taking two authors and putting
- 15 them into one pile. So there is over-refinement and there is
- 16 under-refinement, when you put too many authors in one pile.
- 17 And what happens is that in the results -- and these
- 18 are described in Table 2 and Table 3 on page 10 of that paper
- 19 -- here is what I essentially found: Finding number 1, before
- 20 we even go to errors, was that when I did statistical tests,
- 21 the data that came from the document examiners and the data
- 22 that came from the forensic document examiners were found to be
- 23 statistically different. In other words, when you run standard
- 24 statistical tests blindly, not knowing where these tests are
- 25 coming from, they came back and said this population or that

- 1 population gave us data that is statistically distributed
- 2 differently.
- 3 Q. What are the two populations?
- 4 A. Forensic document examiners in the FBI and graduate
- 5 students at Drexel, but, again, very small groups. I want to
- 6 caution, this was a pilot study; this was not the end of the
- 7 story.
- 8 So that was the first thing that came out, that the
- 9 populations gave us different kinds of data.
- 10 And the second thing that came out was this five of
- 11 the seven FBI document examiners made no mistakes at all, two
- 12 of them made mistakes. One of them made one over-refinement

- 13 error; in other words, instead of giving me 20, he gave me 21
- 14 piles, one author appears twice.
- 15 And there was another document examiner who made one
- 16 error of each kind, in other words, one pile included two
- 17 authors and one author appeared in two different piles.
- 18 Now, when I looked at what the laypersons have done,
- 19 I mean, I don't have a scientific word to describe it; it's
- 20 really a mess. They gave me piles which were very, very, very
- 21 -- it was wrong. The best layperson was nowhere near in terms
- 22 of performance as the worst FBI test-taker. So what this gave
- 23 is at least some initial hint, indication, that there may be a
- 24 difference between the way that laypersons and forensic
- 25 document examiners do the work.

- 1 Now, on top of that, because of the fact that you
- 2 wanted to understand the results, I interviewed, and because of
- 3 the small numbers, I could have actually have interviewed --
- 4 I'm not -- I don't swear that I interviewed everyone but I was
- 5 close to interviewing everyone. And what became quite clear
- 6 when I put the question again in front of -- what I did was you
- 7 came to be interviewed by me, I showed you two documents and I
- 8 said, "Why don't you tell me if they belong together or not and
- 9 why?" It became clear that the laypersons were tending to look
- 10 at similarities, and as soon as they convinced themselves that
- 11 there were enough similarities, they declared that the two

- 12 documents were written by the same person, they tend not to see
- 13 differences or significant dissimilarities between the
- 14 documents. And a layperson typically came into the room and
- 15 the first thing that he or she was trying to do was to find
- 16 similarities, whereas a forensic document examiner came into
- 17 the room and the first thing that he or she tried to do was to
- 18 find dissimilarities. So it appears to me that the document
- 19 examiners came into the room more sceptic about the common
- 20 writing, the common origin of the two documents, whereas the
- 21 laypersons were more inclined to accept that they were of the
- 22 same -- came from the same hand.
- 23 And this is something that I continually saw,
- 24 incidentally, in subsequent tests. But this is what happened
- 25 as a result of these tests; these are the main results, these

- 1 are the main conclusions.
- 2 Q. Okay. And you testified that you conducted a more
- 3 extensive study in subsequent years?
- 4 A. Yeah. After that, after that and after Selzik Bizell, I
- 5 went back to the FBI and I suggested that they let me do a much
- 6 bigger test and this appears -- this was published in 1997. It
- 7 is the first document in this compilation that we discussed;
- 8 it's a paper by myself, Fielding and Conn. And there, we
- 9 really did a large, large-scale test.
- 10 This test was done, four groups participated. The

- 11 groups were one in Atlanta, one in Reno. One, I split it and I
- 12 did in Washington and then, I think, the next day, in New York,
- 13 or the other way around, and then, a group of laypersons. So
- 14 the total of document examiner -- the number of document
- 15 examiner {sic} was, I think, 105 or so and in groups of about
- 16 33 or 35. And there was a layperson group in Philadelphia, and
- 17 there were about 41 of them.
- 18 Now, what happened in that test was the following:
- 19 You came to the test -- I'm sorry, I'm sorry.
- 20 Q. Dr. Kam, can I just ask you a couple of questions about
- 21 the participants.
- 22 A. I'm sorry. I'm sorry, sure.
- 23 Q. You said that you thought there were about 105 forensic
- 24 document examiners; did you have any qualifications for
- 25 defining who were forensic document examiners?

- 1 A. Yes. Here is how I defined the document examiner. There
- 2 was no definition on the books, there was no state licensing or
- 3 things like that, so I needed to define what we mean, and I did
- 4 the following: If you were a diplomate, certified by the
- 5 American Board of Forensic Document Examiners, ABFDE, that was
- 6 enough for me. If you were a member of the American Society of
- 7 Questioned Document Examiners, that also qualified you to take
- 8 the test. Reason: That there is a set of tests that you have
- 9 to take before you come into that organization.

- 10 If you were a member of the questioned document
- 11 section of the American Academy of Forensic Sciences, you were
- 12 accepted as well.
- 13 As it turns out, there was no person, I think, who
- 14 did not qualify otherwise and needed this third qualification.
- 15 If you also were a member of some of the affiliated
- 16 or recognized organizations, the ASQDE, the local ones, for
- 17 example in this area -- a forensic document examination society
- 18 that is recognized -- then, I allowed you to come in as well.
- 19 I almost never needed that; in other words, the two
- 20 top qualifications almost encompassed everybody. So these were
- 21 the requirements for document examiners.
- 22 In terms of the laypersons, it was not easy to
- 23 declare what do you really mean by a layperson; so what I
- 24 decided to do was to try to create, to create a profile that
- 25 would be close in education levels to the ones that document

- 1 examiners had. So the 41 were, more or less, distributed
- 2 educationally the way that the forensic document examiners
- 3 were. These were my laypersons, my 41 laypersons who took the
- 4 test in Philadelphia.
- 5 Q. Okay. Were they not all graduate students at Drexel?
- 6 A. No. I needed to have some undergraduates, and the reason
- 7 is at the time -- I see, in time, that this is waning out, but
- 8 at the time, there were some forensic document examiners

- 9 without the first degree. So I did put some undergraduates in
- 10 the mix, just -- usually, I tried to take juniors or seniors,
- 11 tried to do something about people who had some education but
- 12 not -- didn't get the full-fledged bachelor's degree.
- 13 So, yeah, there were some undergraduates, there were
- 14 graduate students, there were some staff and faculty, because
- 15 there were actually some people with high degrees, there were
- 16 people with a Ph.D. in document examiner {sic}, so I tried to
- 17 match them.
- 18 Q. And was there any statistical significance to the number
- 19 of forensic document examiners and laypersons that you
- 20 selected?
- 21 A. First of all, let's start with the laypersons: Since I
- 22 had a group of 33, 35 and so on, 41 in the books, and I can
- 23 always normalize for small changes, so that was no problem.
- Now, in terms of taking 105 document examiners, first
- of all, I would have taken as many as I could get, but you have

- 1 to ask yourself another question, and that is how many document
- 2 examiners are there, say, in the United States and Canada? And
- 3 the numbers, the estimates of numbers varied, but I don't hear
- 4 anyone who thinks that there are less than 350 and nobody
- 5 thinks that there are more than 1200.
- 6 Okay. I mean, I know it's a wide range, but for the
- 7 sake of my discussion, if I got 105 even out of 1200, that's a

- 8 good sample. I was not worried about not sampling enough
- 9 forensic document examiners. I did not worry that there may be
- 10 some other forensic document examiners somewhere that I missed,
- 11 you know, because of the way that I have chosen them. So these
- 12 were generally the rules by which I went.
- 13 Q. Okay. Now, if you would, explain for us how this study
- 14 was conducted.
- 15 A. Okay. If you came to the test, I gave you two, two
- 16 packets. One packet, I called database, and I told
- 17 you -- there were 24 documents in there and I told you that we
- 18 know who wrote them, in other words, this is our database, each
- 19 one of them is labeled, we know the identity. I didn't give
- 20 you the identity, but I told you that this exists in our
- 21 archives.
- Now, six new documents came, that was the second
- 23 packet, the questioned packet, or the unknown packet as we
- 24 called it at the time. And I knew but not my test-takers that
- 25 each one of these six documents were written by a different

- 1 $\,$ person; I knew that they did not know that. And what I asked
- 2 them to do is for each one of the six unknown or questioned
- 3 document {sic}, I wanted you to find all the documents in the
- 4 database that were written by the same hand.
- Now, what do we mean by "written by the same hand"?
- 6 There was already at the time in existence a stand out of the

- 7 American Society of Testing and Materials. This was E1658.
- 8 E1658 was a scale of conclusions going from elimination to
- 9 identification, and what I told you to do, to tell me the two
- 10 documents were written by the same hand if and only if you
- 11 could have identified them as either being identification or
- 12 strong probability did write, which is the next to highest
- 13 grade on this nine-point scale. And otherwise, in other words,
- 14 if you were not as sure as that, I just told you to leave it
- 15 alone, don't associate, don't match.
- 16 Now, in technical terms, in forensic document
- 17 examination technical terms, this was a question-question test,
- 18 which is a little bit harder -- well, it's really quite a lot
- 19 harder than questioned known tests that are done more
- 20 frequently.
- 21 Let me explain the difference. The difference is
- 22 that I gave you in the database very little information; you
- 23 didn't get six documents of the same writer, I only gave you,
- 24 typically, one, sometimes, two. And, of course, you didn't
- 25 have the opportunity that in many cases one has to go back to a

- 1 suspect or a defendant and request more handwriting or
- 2 handwriting with specific wording, so you couldn't do that; you
- 3 only had, you know, what I gave you and, with that, you had to
- 4 accommodate.
- 5 And so the test was, again, six against twenty-four,

- 6 find all the matches of each one of the six to all of the ones
- 7 in the twenty-four that were written by the same hand.
- 8 Q. Okay. And what were your findings from this study?
- 9 A. Okay. The first finding was that I started doing
- 10 statistical comparisons of the data. Without even asking
- 11 questions about how good or bad the data were, I started making
- 12 comparison of the data between each group of document examiners
- 13 and another group, which, by the way, was also interesting
- 14 because of the fact that there is a lot of local pride and as I
- 15 was running around, people were speculating that maybe one
- 16 group will do significantly -- you know, "They are not as good
- 17 as us."
- 18 And I didn't find that to be true at all; in other
- 19 words, I found that statistically, I could not distinguish
- 20 between the data that came from the three groups of document
- 21 examiners when I pit each one of them against each another, two
- 22 at the time.
- 23 And then I took the laypersons against each one of
- 24 the data sets from the document examiners. And I want to just
- 25 tell you that I did not do it myself; what I have done in this

- 1 case, I sequestered the work, so that we had some students who
- 2 prepared all of the routines, and I just gave them the data as
- 3 in "Here is one set, two sets, three and give me an answer." I
- 4 did not tell them, "This is coming from here, this is coming

- 5 from there."
- 6 And they came and told me that in any comparison of a
- 7 data set that came from document examiners and a data set that
- 8 came from laypersons, that they did not agree that it came from
- 9 the same population, in other words, there were statistical
- 10 differences that were significant.
- 11 Now, interestingly enough, there was also a group of
- 12 trainees that was also tested, and it was small, so one has to
- 13 be careful about how to interpret that. But it was interesting
- 14 that they did not match the -- that there were statistical
- 15 differences between their results and these of the document
- 16 examiners, and there were differences between their results and
- 17 those of the laypersons. In other words, they stuck out, they
- 18 did not -- I could not append them to either group. So this
- 19 was the first -- the first finding.
- Now, the second finding has to do with error rates.
- 21 And now, one has to remember that there are two kinds of errors
- 22 here: One is that two documents were written by the same
- 23 person but you did not tell me, in other words, you did not
- 24 find the match. There was a legitimate match and you, the
- 25 test-taker, you did not find it. And the other one was that

- $1\,$ you found -- that you declared the match of two documents that
- 2 were written by two different individuals, so there are two
- 3 kinds of errors that could have occurred.

- 4 These errors are strongly dependent on each other,
- 5 because it's very easy to be very good in one of these, in one
- 6 of these error rates. In other words, if you told me that I
- 7 need to be very good at one of them, I could, but then the
- 8 other error rate will skyrocket. In other words, it is the
- 9 balance between the two that really makes the appropriate
- 10 handling of this task.
- 11 So here is what I found: When two documents that
- 12 were shown to the two test-takers were written by the same
- 13 hand, both groups have about 87 percent of success rate in
- 14 finding that there was a match.
- 15 The rest, 13, I cannot tell you if the remaining 13
- 16 were due to failure to match or failure to have enough evidence
- 17 to go to the level of certainty that I required, because
- 18 remember, I required that you go all the way to identification
- 19 or high probability wrote.
- Now, however, when two documents were not written by
- 21 the same person and were shown to a test-taker, the laypersons
- 22 in about 38 percent of the cases declared that they were
- 23 written by the same person, whereas document examiners made the
- 24 same mistake about 6.5 percent of the cases.
- 25 So the conclusions were, one, so far, before the

- 1 $\,$ interviews -- but the interviews actually mirror what I already
- 2 told you -- the conclusions were, first of all, that for better

- 3 or worse, there is a skill. In other words, the document
- 4 examiners provide data which are different than the data that
- 5 laypersons provide, and also the error rates of document
- 6 examiners on the aggregate were much better than those of
- 7 laypersons because of the fact that document examiners had a
- 8 balance, whereas the laypersons tended to make many mistakes of
- 9 erroneous matching.
- 10 Now, when we went back and did the same exercise, I
- 11 think we understood what happened, and what happened is that in
- 12 their zeal to find similar characteristics, laypersons tend to
- 13 find all the right ones, because, of course, there were many
- 14 similarities there. But they continued to find, so-to-speak,
- 15 to find, so-to-speak, those documents that had some
- 16 similarities but, actually, that had significant
- 17 dissimilarities and differences and they simply were not
- 18 attuned to detect those. So in retrospect, it was not that
- 19 surprising that they were successful, so-to-speak, in matching
- 20 things, but it became clear that it's very dangerous to show
- 21 documents to laypersons, because they are biased towards
- 22 matching them together.
- 23 That was another conclusion, though, I want to tell
- 24 you, this is the conclusion from the interview; the numbers I
- 25 told you were the conclusions.

- 2 second study.
- 3 Now, one more point, maybe. I don't know if you have
- 4 any other questions about it.
- 5 MR. KISH: Judge, again, I think this is a perfect
- 6 example of an objection I was going to make. I understand
- 7 Professor Kam needs to go on at length to explain his answers,
- 8 but there hasn't been a question asked for about six minutes,
- 9 by my watch, and so I think that the answers, perhaps, should
- 10 be tailored more closely to questions.
- 11 THE COURT: All right. I agree with that, Mr.
- 12 Vineyard.
- 13 BY MR. VINEYARD:
- 14 Q. Dr. Kam, if you would, explain to us the other finding.
- 15 A. The other issue had to do with I just wanted to mention
- 16 that we had monetary incentives, that in the first test -- and
- 17 this was one of the criticisms of the first test, there were no
- 18 monetary incentives --
- 19 Q. The pilot study you referred to?
- 20 A. The pilot study. And in the second test, there were
- 21 monetary incentives.
- 22 Q. And can you just briefly describe what those were in the
- 23 second test?
- 24 A. Yeah. If you found the correct match -- first of all, if
- 25 you came to my test as a layperson, I promised you \$25; no

- 1 matter what, you will get \$25. If you found the match, I'll
- 2 add \$25. For every correct match, I'll add \$25. For every
- 3 erroneous match, I'll subtract \$25. Every time there was a
- 4 match and you did not find it, I'll subtract \$10. So this was
- 5 the scheme: Twenty-five for a correct match and then fines for
- 6 either failure to match or for matching erroneously.
- 7 Q. Did you receive any criticism from your second study and
- 8 any way that you set that study up?
- 9 A. Quite a few, and from all sides. I would say that the
- 10 most serious criticism was that in incentives -- the claim was
- 11 made, in fact, in courtroom {sic} in Atlanta, Georgia, the
- 12 claim was made that the incentives are wrong. The claim was
- 13 that the error rates of laypersons are explained by
- 14 inappropriate incentives, and that laypersons, especially
- 15 college student, it was asserted, tended because of my
- 16 incentives, because of the incentives that we put in front of
- 17 them, tended to bet a lot in order to maximize their monetary
- 18 gain, and the claim was that this explains the high record
- 19 rates of layperson.
- 20 Q. And do you recall who made those claims and criticisms?
- 21 A. Specifically -- and he may not be the only one --
- 22 specifically, Professor Denbeaux made them in testimony in a
- 23 courtroom in Atlanta, Georgia, yeah.
- 24 Q. How did you respond to those criticisms?
- 25 A. I did another test; I did a test just on incentives and

- 1 just for the population that was allegedly the most prone to
- 2 the, so-called, wrong incentives in my 1997 study; 132
- 3 participants, four incentive schemes, they do it in separate
- 4 rooms, they don't know in advance which room they are going to
- 5 be assigned to, exactly the same task as the 1997 task, only
- 6 college students between, I believe, 19 and 24, I believe. I
- 7 mean, it's in my paper exactly what is the range.
- 8 And then, I have tested four different incentives,
- 9 including two incentives that I received, one from Professor
- 10 Denbeaux himself and one from Professor Saks. In other words,
- 11 at that time, I asked them, "Okay. This is wrong; what's
- 12 right?" So they gave me two incentives, I added a fourth
- 13 incentive, and we ran tests on the four incentives with 132
- 14 college students.
- 15 Q. And did you publish the results of that study?
- 16 A. This is the third paper on that in this packet and it is
- 17 entitled, "Effects of Monetary Incentives on Performance of
- 18 Nonprofessionals in Document Examination Proficiency Tests,"
- 19 and I wrote it with Fielding and Conn.
- 20 Q. And what were your findings from that study, Dr. Kam?
- 21 A. I have two findings: One, no statistical differences
- 22 between the data from the four groups. In other words, it
- 23 doesn't matter what was the incentive; we got the same
- 24 statistical results.
- 25 Two, we found that in this subset of document

- 1 examination of laypersons, the error rates were a little bit
- 2 different than in the overall population that we tested
- 3 before. They were a little bit better. They were actually
- 4 significantly better in not matching together things that were
- 5 not supposed to be matched together and a little worse in
- 6 finding matches. So their error rates were -- the 87, the
- 7 correct matching 87 went down to 81, so this was worse. But
- 8 the error rate in matching together a document that should not
- 9 have been matched together went down from 38 to 22, which was
- 10 better. Yet, they still were far away from what the document
- 11 examiners have done, both in the sense that statistically,
- 12 again, the data were different and in the sense that their
- 13 error rates were still much worse.
- In fact, in this case, in both areas, they were much
- 15 worse than those of the document examiners. So the main
- 16 conclusion was that the incentives were not the issue that the
- 17 critics made of it. I mean, I'm not criticizing them; it was
- 18 legitimate criticism. But it turns out not to be, not to be
- 19 the issue.
- 20 Q. And is there a table in your paper that is Table 5 that
- 21 reflects the comparison of the studies?
- 22 A. Yeah, the Table 5 shows the error rates, and you can see
- 23 that the, so-called, new known professionals with 81 percent
- 24 and 22 percent, the old known professionals, which are the 1997
- 25 study, which is 87 percent and 38 percent, and the document

- 1 examiners, which is 87 percent and 6.5 percent, yeah.
- 2 Q. Do you have any explanation for the change that you saw in
- 3 the wrong association rate?
- 4 A. All I can say is that I would not -- again, I did not
- 5 delve into it, but all I can say is that I would not expect a
- 6 subset of the population of those who are, you know, young,
- 7 between 19 and 24, necessarily to have the same skills,
- 8 cognitive skills, eyesight, et cetera, of everybody else in
- 9 that group. So I was not particularly shocked that the
- 10 subgroup would not perform exactly like everybody else.
- 11 Q. Okay. And you've noted also that what you refer to as
- 12 their hit rate declined --
- 13 A. Yes.
- 14 O. -- from 87 to 81?
- 15 A. Right. Again, the same thing; I don't know exactly what
- 16 it is, but I'm not surprised that the subgroup will be
- 17 different than everybody else.
- 18 Q. Now, Dr. Kam, have you more recently conducted studies or
- 19 written a paper, I should say, in the area of comparison of
- 20 printed, hand-printed documents?
- 21 A. Yes. Yes, I did. This is the fifth paper in the packet;
- 22 it is "Writer Identification using Hand-Printed and
- 23 Non-Handprinted Questioned Documents." It's by myself and Lin,
- 24 and it was written in response to criticism by Professor Saks
- 25 in the United States versus Hidalgo, a case in Arizona.

- 1 Q. And what was that criticism?
- 2 A. The criticism was that in Hidalgo, I understand -- I did
- 3 not see the specimen myself, I don't do document
- 4 examination -- the documents were hand-printed, and the
- 5 criticism was that the numbers that I brought forth did not
- 6 segregate hand-printed documents from non-handprinted documents
- 7 and, hence, the hypothesis was put forward that maybe in the
- 8 area of hand-printed documents, we will see results which are
- 9 fundamentally different than what we saw on the general
- 10 cursive, mixed hand-printed documents.
- 11 So during Hidalgo, I've done the first part of this
- 12 study, and after more criticism in Hidalgo, which required even
- 13 more sedimentation of the data, I took essentially all of the
- 14 criticism in and I've done exactly what was requested, and I
- 15 compared the capabilities of document examiners to that of
- 16 laypersons in each one of the separate groups, namely,
- 17 hand-printed, non-handprinted, cursive, non-cursive, cursive,
- 18 mixed and hand printed. I took every possible subset and I
- 19 have done extensive comparisons between what document examiners
- 20 and laypersons could do.
- 21 I did not conduct new tests for that purpose; I went
- 22 back to data that was collected in 1997, except that at the
- 23 time, I did not pay any attention to hand-printed,
- 24 non-handprinted and, at this time, I did. And I repeated the
- 25 1997 analysis on these data but with the new groups.

- 1 Q. Okay. And what findings did you reach from this analysis
- 2 of the data?
- 3 A. Number one, in every subset of the documents, the
- 4 laypersons gave data which were statistically different than
- 5 the data that were given by the document examiners. That was
- 6 absolutely clear.
- 7 In all areas, the document examiners had error rates
- 8 which were superior to that of laypersons. Though not
- 9 statistically significant, the error rates with hand-printed
- 10 documents were slightly higher than with cursive documents.
- I want to tell you the statistical tests did not show
- 12 this to be meaningful and, yet, it is there and it shows and it
- 13 may prove in additional testing to be somewhat significant.
- 14 It's clearly not significant with the data that I have. But
- 15 even so, the error rates of document examiners in the set that
- 16 I studied in hand-printed documents alone were still much
- 17 better than those of laypersons.
- 18 Now, evidently, we could not conduct any interviews,
- 19 you know, with people who took the test years ago, so I just --
- 20 I could just go to the data and re-analyze it. So this was
- 21 just published; this was published in November of 2003, but
- 22 drafts of it were already circulating at the time of Hidalgo,
- 23 because most of this was done during Hidalgo.
- 24 Q. Okay. And are drafts circulated as part of the peer
- 25 review process?

- 1 A. Not usually, but because of the fact, because of the
- 2 challenges and because of the fact that I really want to do
- 3 that wanted to do that due to criticism that appeared during
- 4 Hidalgo, in this particular case, there was a draft in
- 5 circulation before the paper actually saw light. Usually, you
- 6 don't really do mass distribution of drafts before a paper is
- 7 published; the journal is doing the peer review and due
- 8 diligence. But in this case, because of the fact that it
- 9 started in a court case in Arizona, there were drafts out for a
- 10 while.
- 11 Q. Okay. Now, the studies that you have conducted, Dr. Kam,
- 12 how were they paid for?
- 13 A. As I said, the first one was really appended to an
- 14 existing project. The next two, I went back to the FBI and I
- 15 wrote a proposal and they approved it.
- 16 I received subsequently a standard-alone grant from,
- 17 I believe, the United States Army through to do the signature
- 18 test, which we have now discussed and I understand it's outside
- 19 the scope of here. And most recently, after several years of
- 20 not having serious funding, we were able to get some funding
- 21 from The National Institute of Justice to do some additional
- 22 work that just started and some subsequent supplement from the
- 23 Department of Defense for this particular set of topics. So
- 24 this is how these things were funded.
- 25 From time to time, I needed to go into -- I get from

- 1 Drexel some -- I have an account at Drexel that is some
- 2 overhead returns, so from time to time, I use it, so some
- 3 Drexel University money went into that as well.
- 4 Q. Okay. Now, are these studies that you have discussed the
- 5 only studies that your lab conducts?
- 6 A. In this particular area?
- 7 Q. No. In all areas.
- 8 A. No.
- 9 Q. Okay.
- 10 A. Actually, I needed to show a graph not too long ago, and
- 11 we found out that over the last decade, this kind of work is
- 12 about ten percent volume of our work.
- 13 Q. And do you publish in areas other than this?
- 14 A. Most of my publications are not in this area; this is not
- 15 the major occupation of my laboratory.
- 16 Q. Okay. And, Dr. Kam, you have been called to testify in
- 17 court on previous occasions, have you not?
- 18 A. Yes, I did.
- 19 Q. And are you compensated for your time?
- 20 A. I'm compensated for my time. I don't know, by the way,
- 21 about this case, because the paperwork never arrived, but
- 22 usually, I'm compensated for my time, yes. Yes.
- 23 MR. VINEYARD: I believe that's all the questions I
- 24 have for Dr. Kam at this time, Your Honor.
- THE COURT: Mr. Kish?

- 1 MR. KISH: Yes, ma'am.
- 2 CROSS-EXAMINATION
- 3 BY MR. KISH:
- 4 Q. Dr. Kam, you and I introduced ourselves one to another in
- 5 the hallway a few moments ago, I believe?
- 6 A. Yes, sir.
- 7 Q. And that is, as far as we know, the first time we have
- 8 ever met?
- 9 A. I think so.
- 10 Q. You mentioned to Mr. Vineyard just now that you are
- 11 compensated; at what rate?
- 12 A. My hourly rate is \$187.50 per hour, for a maximum of eight
- 13 hours for a 24-hour period.
- 14 Q. Okay.
- 15 A. By the way, that's what I am asking; that doesn't mean
- 16 that this is always approved, but this is what I'm asking,
- 17 yeah.
- 18 Q. All right. And you also just mentioned to us that in
- 19 looking back at this whole area of inquiry you've had now for
- 20 about a decade looking at handwriting, that you said it really
- 21 occupies only about ten percent by volume of what your lab
- 22 actually does?
- 23 A. That's correct.
- 24 Q. How about in terms of the amount of money that your lab

- the field of handwriting? 1
- 2 About the same.
- 3 Ο. About ten percent?
- About the same. Just if you would allow me to give you 4
- 5 the sense of it, right now, my lab has, I believe, one contract
- for two years, which is about \$180,000, and one contract which 6
- 7 is for two years, which is about \$240,000 for handwriting, but
- 8 we had about two million dollars from other sources.
- 9 I see. In the hallway a moment ago when you and I
- 10 introduced ourselves to one another, I also reintroduced you to
- someone else, didn't I? 11
- 12 Well, let me say that I had the cue, because I saw earlier
- 13 today a resume of that lady, so it was not completely
- 14 unexpected.
- 15 Okay. That's Dr. Carol Chaski, isn't it?
- 16 Yes. I want to tell you that had I not had the cue, I'm
- not sure that I would have recognized her. I recognized her 17
- 18 because I knew that she was here, yeah.
- 19 Do you now recall having worked together with Dr. Chaski
- when she was a fellow at The National Institute of Justice, the 20
- research arm of The United States Department of Justice? 21
- 22 Emphatically, no. Α.
- 23 Q. Okay.

- 24 A. I did not work with Dr. Chaski. It is true that Dr.
- 25 Chaski sat on a committee that I sat on, and it is entirely

- 1 possible that during the time that she was at the N.I.J., we
- 2 may have had a few phone conversations. Describing us as
- 3 working together, no.
- 4 Q. All right. You know her professionally, would that be
- 5 safe to say?
- 6 A. No, it would not be safe to say. As I said, she is
- 7 linguistics; it's not an area that I know professionally. I
- 8 know what she does.
- 9 I met her -- as I said, I met her from time to time
- 10 when I believe she represented N.I.J.
- 11 (Pause in the proceedings.)
- 12 THE WITNESS: Can I complete?
- 13 (Pause in the proceedings.)
- MR. KISH: Okay. I've got this here.
- 15 BY MR. KISH:
- 16 Q. Dr. Kam --
- 17 A. May I complete my answer?
- 18 Q. I'm sorry, let me show you these two exhibits that are
- 19 already marked and admitted into the record as Government
- 20 Exhibits 21 and 22. Have you ever seen those two documents
- 21 before?
- 22 A. The exhibit 22 is my paper and, yes, I've seen it before;

- 23 I wrote it.
- 24 Q. I have given you the wrong number. I need number 20.
- 25 A. Okay.

- 1 (Pause in the proceedings.)
- 2 BY MR. KISH:
- 3 Q. I handed you the wrong one. I'm going to hand you exhibit
- 4 number 20 that's already been admitted into the record here.
- 5 A. Okay. Okay.
- 6 Q. Have you seen either of these two exhibits which I have
- 7 just handed you now?
- 8 A. Okay. I have seen one of the two, and let me tell you
- 9 what they are.
- 10 Q. First, which one is it that you have seen?
- 11 A. I've seen 21.
- 12 O. And what is number 21?
- 13 A. Twenty-one is the 1996 version of ASTM standard E1658.
- 14 Q. And what is that standard applicable to?
- 15 A. This is a standard on terminology, standard terminology
- 16 for expressing conclusions of forensic document examiners.
- 17 Q. Great. I'll take that back from you, Doctor, as well as
- 18 the other exhibits that I have just handed to you. Thank you.
- 19 A. (Witness complies with request of counsel.)
- 20 Q. Thank you. Did you and Dr. Chaski have any working
- 21 together in the creation of this particular exhibit that you

- 22 just discussed?
- 23 A. No.
- 24 Q. Okay.
- 25 A. Let me explain.

- 1 Q. Sure.
- 2 A. We work on related areas; however, this predates the first
- 3 time that I believe I ever met Dr. Chaski.
- 4 Q. All right. And I know I'm probably not using the right
- 5 terms, so please excuse me and tell me if I'm using the wrong
- 6 ones. But how many actual tests have you created in the field
- 7 of handwriting examination? I mean, you've told us you have
- 8 five published papers and maybe tests or studies. I'm not sure
- 9 what is the right word.
- 10 A. Well, there are five studies, evidently, four different
- 11 tests that were already completed.
- 12 Q. Okay. Okay.
- 13 A. Yeah.
- 14 Q. So the first one is the pilot one?
- 15 A. Right.
- 16 Q. And then, there was the second one. And how many
- 17 participants were in the second one?
- 18 A. There were 105 document examiners and 41 laypersons.
- 19 $\,$ Q. The third test was the one where you were trying to look
- 20 at the issue of whether monetary incentives had an impact on

- 21 your data, right?
- 22 A. Correct.
- 23 Q. And how many participants were in that?
- 24 A. There were 132.
- 25 Q. The fourth test, how many participants were in that?

- 1 A. I believe more than 100. It is the signatures test, which
- we did not discuss in detail.
- 3 Q. Okay.
- 4 A. But more than a 100.
- 5 Q. All right. So let's put the signature test out of it,
- 6 since we haven't talked about that today.
- 7 So what we have got is the pilot study and then the
- 8 pre-monetary incentive question and then the post-monetary
- 9 incentive issue database, so-to-speak, right?
- 10 A. Yes.
- 11 Q. Okay. All right. When you would get data in either of
- 12 those two tests, not the pilot but either the pre- or
- 13 post-monetary incentive tests, when you would get data from
- 14 professional forensic document examiners -- and you've told us
- 15 how you define that -- where were the document examiners when
- 16 they took the test, so-to-speak?
- 17 A. Okay. I guess we're talking primarily about 1997 or maybe
- 18 we should start with 1997 test {sic}?
- 19 Q. So the '97 is the first pre-monetary incentive test?

- 20 MR. VINEYARD: Your Honor, I think that confuses
- 21 pre-monetary incentives. The witness testified there was a
- 22 monetary incentive in the '97 test for laypersons.
- 23 MR. KISH: All right.
- 24 BY MR. KISH:
- 25 Q. Let's go in chronological order. That will help me,

- 1 actually.
- 2 A. Okay. The 1994 test --
- 3 Q. Okay.
- 4 A. -- the ten FBI individuals took it in Washington,
- 5 D.C. --
- 6 Q. Okay.
- 7 A. -- the laypersons took it in Philadelphia.
- 8 Q. Okay.
- 9 A. The 1997 was the following. I took a suitcase to Atlanta
- 10 and I did it on Saturday, and I flew Saturday night to Reno and
- 11 I did it on Sunday.
- 12 Q. Okay. Let's stop for a second. You took a suitcase and
- 13 you flew to Atlanta?
- 14 A. Right.
- 15 Q. Did you go to the homes of each one of the --
- 16 A. (Nods head affirmatively.)
- 17 Q. Okay. That's what I'm getting at: Where were the
- 18 document examiners?

- 19 A. I contacted the local association -- they had a
- 20 conference -- and I requested time.
- 21 Q. I see.
- 22 A. And I want to tell you that it takes a long time to get
- 23 time.
- 24 Q. I can imagine.
- 25 A. Okay. And a lot of negotiation. And I received time and

- 1 I was very grateful. And I came with my test and we did the
- 2 test in Atlanta --
- 3 Q. Okay.
- 4 A. $\operatorname{\mathsf{--}}$ in the same venue where the conference took place.
- 5 Q. Okay.
- 6 A. And then, there was another conference in the Midwest, the
- 7 Reno test.
- 8 Q. Right.
- 9 A. And I flew there and I negotiated the time with them.
- 10 Q. Again, your suitcases?
- 11 A. Again, with the suitcase, which was pretty disastrously
- 12 heavy.
- 13 And then, I negotiated with a local organization --
- 14 with a Northeastern organization, but it was impossible to do
- 15 it in one place.
- 16 Q. Okay.
- 17 A. So what we did was we did in the post office in New York

- 18 City in Manhattan {sic}.
- 19 Q. Okay.
- 20 A. And then we did -- I believe in FBI headquarters, they
- 21 agreed to allow us to do it there.
- 22 Q. Okay.
- 23 A. So we did these groups there, so this is where the
- 24 document examiners {sic}.
- 25 Q. Let's come back to Atlanta. Your suitcase is probably the

- 1 most full, you've got the most number of tests?
- 2 A. Yes.
- 3 Q. When you hand the tests out at the meeting where they have
- 4 given you some time, are all the document examiners in the same
- 5 room at the same time?
- 6 A. Yes.
- 7 Q. Are they all sometimes at the same table when they are
- 8 taking the test?
- 9 A. Yes, but --
- 10 Q. I'm listening.
- 11 A. Not really at the same table.
- 12 Q. I understand.
- 13 A. Technically, the answer is no.
- 14 Q. Okay.
- 15 A. But I want to tell you, what happens is there is a very
- 16 long -- there is a very long, you know, set of tables, because

- 17 it is in a conference, and everyone occupies a table.
- 18 Q. I understand.
- 19 A. Now, however, there are instructions, and the instructions
- 20 are do not talk to each other.
- 21 Q. Sure.
- 22 A. And I'm there, and they do not talk to each other.
- 23 Q. Okay.
- 24 A. In other words, everybody works on himself or himself
- 25 {sic}.

- 1 Q. How long did the document examiners take in the Atlanta
- 2 test?
- 3 A. The test, I believe, was either two and a half hours or
- 4 three. However, as a document examiner, if you wanted to do
- 5 and you did as many you wished --
- 6 Q. Okay.
- 7 A. -- in other words, I told you if you want to take one and
- 8 you've not completed, that's okay, don't rush {sic}. So some
- 9 of them did one, went away, some -- very few. Most of them
- 10 did -- stayed almost the whole time and did more than one test,
- 11 probably.
- 12 Q. Okay. And you were in the same room with them taking the
- 13 test?
- 14 A. Yes.
- 15 Q. And that's how you're sure they didn't share any

- 16 information?
- 17 A. I am sure they did not share.
- 18 Q. Okay.
- 19 A. Because, in fact, it was so well guarded, that even the
- 20 coffee -- if they wanted to take a break, even that was there
- 21 and it was in the same room and I could see what's going on.
- 22 Q. Am I safe in assuming, then, that this was the template
- 23 for all of your later administration of tests to groups of
- 24 forensic document examiners?
- 25 A. Except there was one case when I was ill and I had to send

- 1 a substitute. Other than that, there was always someone,
- 2 either myself or a designated person, who was present.
- 3 Q. I thought you-- and I want to make sure I wrote this down
- 4 right, but tell me if I'm wrong. I thought you said to us --
- 5 and I used the acronym FSF for Forensic Science Foundation.
- 6 A. Forensic Science Foundation.
- 7 Q. Those are the tests that Denbeaux and Risenger and Saks
- 8 put some stock in, right?
- 9 A. (Nods head affirmatively.)
- 10 Q. And I thought you told us that those tests, those FSF
- 11 tests, have no bearing on the proficiency of document
- 12 examiners; is that safe to say that or not?
- 13 A. It's safe, but there is a qualification, if you will allow
- 14 me.

- 15 Q. Okay.
- 16 A. Here is the only way that I think they can be used.
- 17 Q. Okay.
- 18 A. If I come to you, if you have a lab --
- 19 Q. Okay.
- 20 A. -- and I'm a -- an accrediting organization and your
- 21 examiners have taken the test and I can see individually what
- 22 each one of them has done, it's useful. In other words, it's
- 23 useful -- by the way, with great qualifications, because of the
- 24 fact that I think that not all of the tests are useful, because
- 25 some of them I think are just atrociously prepared. But some

- 1 of them, some of them may be useful at the very least to
- 2 compare the quality of people in your lab to people in his lab,
- 3 you know, just on an individual basis, how did you do on the
- 4 test, very qualified because of the photocopying issue also.
- 5 To that extent, helping accreditation, these tests may have
- 6 some usefulness.
- 7 I want to, however, admit to you that if I had a
- 8 magic wand and I could have eliminated these tests from the
- 9 earth forever, I would.
- 10 Q. How about the test by Wolfgang Conrad in Germany in 1975,
- 11 are you aware of that?
- 12 A. No, I'm not.
- 13 Q. Your student didn't find the fact that in 1975, the major

- 14 German researcher in this field has an entire body of data on
- 15 this question?
- 16 A. Sir, as I said a moment ago, I'm not aware.
- 17 Q. Okay. Have you done any other -- and I'm using the word
- 18 "test" and maybe the better word is "study" -- but any other
- 19 inquiries involving human beings and their capabilities in your
- 20 professional life?
- 21 A. No.
- 22 Q. This is it, these five papers are the entire body of your
- 23 work as it comes to human beings, right?
- 24 A. The entire, complete body of my work.
- 25 Q. Okay. You have no training as a social scientist?

- 1 A. I don't have any training as a social scientist.
- 2 Q. You have no training in how to formulate a test question
- 3 to a human being?
- 4 A. That's incorrect.
- 5 Q. Oh, okay. How is that?
- 6 A. That's incorrect. Because I have taken -- during my
- 7 studies, I've taken classes about testing methods, and
- 8 moreover --
- 9 Q. Okay.
- 10 A. -- in preparation for our tests, we have, as, by the way,
- 11 you will see in our paper from the year-- let me just get
- 12 there -- 1998, you will also see that we have gone through a

- 13 large number of journals in experimental psychology in order to
- 14 make sure that our incentive schemes are not any worse than any
- one that was given 15 years before we gave our test.
- 16 Q. Dr. Kam, my question to you was about the formulation of
- 17 questions that are given to human beings; do you have any
- 18 training in that area?
- 19 A. No.
- 20 Q. Is the hypothesis in any of your studies designed to test
- 21 the proficiency of forensic document examiners?
- 22 A. I'm not sure I understand the question.
- 23 Q. How well they can find a match or how well they can
- 24 eliminate a person from having done something, done a writing.
- 25 A. Yes, yes.

- 1 Q. Which study shows just how well they performed?
- 2 A. Well, each one of my studies shows how well they
- 3 performed. Specifically, the 1997 test shows how well they
- 4 perform in questioned tests, where they compare documents to
- 5 each other and they answer the question were these two
- 6 documents written by the same hand or not.
- 7 Q. And how well do they do that, what's the numerical number
- 8 they get?
- 9 A. Okay. So here is what happens: When two documents were
- 10 written by the same person and when the criterion for match is
- 11 the highest two points in the nine scale of ASDM --

- 12 Q. Okay, okay.
- 13 A. -- about 80 percent of the time, they find the match.
- 14 When two documents were not written by the same person, 6.5
- 15 percent of the time, they do find -- so-to-speak, find -- a
- 16 match.
- 17 Q. How often are document examiners right; does your data
- 18 show that?
- 19 A. The question is ill-posed; there is no such question. I'm
- 20 sorry, please allow me to elaborate.
- 21 Q. Sure, go ahead.
- 22 A. Because of the fact that there are two error rates, the
- 23 questioned always has two parts, and so you always have to
- 24 answer the question with two error rates, which I just told
- 25 you.

- 1 Q. Okay. Let me pose a hypothetical to you, okay? If a
- 2 legal system said that its inquiry for deciding whether or not
- 3 a particular field of human endeavor is an expertise, and if
- 4 that legal system said we want to know how often this
- 5 particular endeavor is right versus how often it is wrong,
- 6 wouldn't it be better simply to test the practitioners in that
- 7 field by themselves to see how well they do?
- 8 A. No, with an exclamation mark.
- 9 Q. Okay. Could you not have created a test whereby you
- 10 simply asked the heads of the various forensic labs around the

- 11 United States to periodically give a secret set of data to one
- 12 of their regularly employed document examiners and to see how
- 13 well they do on it? Wouldn't that tell you how they perform?
- 14 A. No.
- 15 Q. Okay. The criticisms that some other people have leveled
- 16 at your work is common in science; wouldn't you agree with me?
- 17 A. No.
- 18 Q. Criticism is not common?
- 19 A. No, criticism is common; I must admit that the degree of
- 20 passion that came along with the criticism was quite uncommon.
- 21 Q. All right.
- 22 A. I'm very familiar with disputes on data, on methods, on
- 23 results.
- 24 Q. Okay.
- 25 A. I very seldom have seen this degree of passion.

- 1 Q. Okay. You mentioned to us earlier that you had -- and I'm
- 2 probably not using your words, so I apologize -- I wrote down a
- 3 huge question about the origin of the data in the FSF studies.
- 4 A. It was not so much the origin of the data $\operatorname{--}$
- 5 Q. Okay.
- 6 A. -- as the fact that, if you will allow me to elaborate a
- 7 little bit --
- 8 Q. Certainly.
- 9 A. -- let me give you just one example to explain why I think

- 10 there was so many problems. One of the FSF tests was on
- 11 signatures.
- 12 Q. Okay.
- 13 A. And the idea was you have to find out whether the
- 14 signature is genuine or not, except that the person who wrote
- 15 the genuine signature wrote a name that was not his.
- 16 Q. Okay.
- 17 A. So when you see things like that, you realize that there
- 18 were also some methodological problems with the way that the
- 19 very original tests were graded, let alone the fact that they
- 20 were photocopied, let alone the fact that it was done by mail,
- 21 et cetera, et cetera.
- 22 Q. Uh-huh (affirmative)?
- 23 A. So even that, even that was a question.
- 24 Q. I can understand that. And then, you mentioned something
- 25 about you yourself had even more questions when you tried to

- 1 get a copy of the test and it seemed to you to be artificially
- 2 priced, or something like that?
- 3 A. No, no, no. What I said is that the fact that I could get
- 4 it surprised me, the fact that there was no attempt to resist
- 5 -- I was unknown in the field, I took a -- I went to my phone
- 6 and in seven and a half minutes, someone offers me to sell me a
- 7 test that I can fill in and send back the results. And if I $\,$
- 8 did it -- you know, I'm not a document examiner, so I was a

- 9 little bit surprised that I could have easily -- well, by the
- 10 way, I didn't have the few hundred dollars to buy it, so I
- 11 didn't buy it.
- 12 Q. I understand.
- 13 A. But the fact that they agreed to sell it to me was -- I
- 14 mean, a bell rang at that moment.
- 15 Q. And that bell would not ring for anybody trying to get
- 16 your data, because you won't share it?
- 17 A. Well, I do and do not. There is some data that I shared
- 18 and some data that I did not share.
- 19 Q. With whom have you shared your data?
- 20 A. I'll show you. I just shared data about hand-printing and
- 21 non-handprinting with the whole world. I shared it with
- 22 Professor Saks during Hidalgo.
- 23 Q. Oh, you did? Okay.
- 24 A. Oh, yeah, of course.
- 25 Q. Okay, okay.

- 1 A. So it is correct that I did not share all my data;
- 2 however, whenever there was a criticism, I generated data in
- 3 order to respond to it or share the appropriate data, when
- 4 there were legitimate criticisms.
- 5 What I did not do is I did not give access to my raw
- 6 data to external researchers.
- 7 Q. Would it surprise you to know that Professor Saks has

- 8 given a statement under oath in this proceeding in an affidavit
- 9 that there has been a rise in the percentage of how often
- 10 forensic document examiners answer questions correctly over the
- 11 last two decades contained within the FSF database? Would that
- 12 surprise you?
- 13 A. Would the statement surprise me?
- 14 O. Yes.
- 15 A. You'll have to excuse me telling you that I do not care
- 16 nor do I give any significance at all whatsoever to any result
- 17 that is coming out from the test of FSF or CTS, the way they
- 18 are conducted at the present time.
- 19 Q. Okay. Let's talk about the motivation issues just for a
- 20 second that you tried to account for in I guess it would be
- 21 your third paper.
- 22 A. Yes.
- 23 Q. Okay. And I take it that you would agree that a person
- 24 whose career is on the line probably is more motivated to
- 25 perform well than a person receiving \$100 or \$200? Would you

- 1 concede that?
- 2 A. No. Not necessarily, no.
- 3 Q. Okay. Would you concede, then, that the data in your own
- 4 studies that have been published shows that when it comes to
- 5 making a correct match between a question in a known document,
- 6 that laypersons performed better or at least as well as the

- 7 forensic document examiners within your database?
- 8 A. No. As I explained before, I object, continue to object
- 9 and probably will continue to object to attempts to dissect the
- 10 two error rates and present them as separate from each other.
- 11 And, therefore, while technically what you said is not the
- 12 wrong statement, it is half the story, and the rest of the
- 13 story should immediately be appended in order to provide the
- 14 courts and the scientific community and whoever with the
- 15 correct picture of what is happening.
- 16 Q. Okay. Are you aware of any other studies in this area
- 17 other than yours?
- 18 A. Yeah. There have been recently some studies by Brian
- 19 Found in Australia --
- 20 Q. All right.
- 21 A. -- and these studies were done on signatures. And to the
- 22 extent that I know in terms of controlled studies, you know, in
- 23 the English-speaking community, that's the only thing that I
- 24 know that is in existence.
- 25 Q. Do you know of any endeavor in science where a proposition

- 1 is accepted as true when there is only one or two studies that
- 2 have tested it?
- 3 A. Yes. For example, if I gave you the proposition that one
- 4 can down a house with TNT, one experiment is enough. So the
- 5 answer is yes; in other words, in the case that you have

- 6 decisive results from, you know, a single well-designed test,
- 7 the answer is, of course, yes.
- 8 Q. And I want to make sure I'm hearing this under oath:
- 9 These are decisive results on the performance and the
- 10 proficiency of forensic document examination?
- 11 A. Well, by the way, that was not what I told you. But first
- 12 of all, you asked the question about whether there are cases of
- 13 a single study.
- 14 Q. Okay.
- 15 A. What I can say about my study is this: Of course, no
- 16 study is perfect. And, in fact, I get all the time criticism
- 17 and I design new tests and I hope to have new tests. And, in
- 18 fact, I hope to come up in the next few years with better tests
- 19 than this one.
- 20 All I can say about my tests, so that you have the
- 21 correct statement under oath is the following: It is
- 22 comprehensive. In other words, the number of people who took
- 23 it was relatively large. It represents a basic task that
- document examiners do all the time, namely, compare documents
- 25 to each another. It has shown significant differences between

- 1 what laypersons can do and document examiners can do. And it
- 2 provided us with some notion of error rates. That is what I
- 3 have done; I don't claim to have done more than that.
- 4 Q. Let's take the issue of the layperson's performance out of

- 5 your inquiry altogether. If the inquiry is how well do
- 6 document examiners perform in correctly making a match, do your
- 7 studies answer that question alone?
- 8 A. The question cannot be answered alone, because there are
- 9 always two questions, as I said; it's always the two
- 10 questions. My study provides what I believe is significant
- 11 evidence that the error rates of document examiners are capped
- 12 by 6.5 percent and 87 percent, as I described, and, therefore,
- 13 they provide at least an upper limit on their error rates.
- 14 And the reason that they say upper limit, there are
- 15 two reasons: One is, as I told you, the task that I gave them
- 16 is harder than the task that they usually see, because usually,
- 17 they have many more documents for comparison than what I gave
- 18 them. And the other thing that you should also realize is that
- 19 I do it -- you know, we do it in a room in a given time, here
- 20 it is, give me your answer. And typically, in the operation of
- 21 document examination, there is much more work and consultation
- 22 and ability to use more instrumentation and so on.
- 23 So my view is that these provide us with upper limits
- on the error rates, and I would not be surprised if the actual
- 25 error rates would be lower.

- 1 $\,$ Q. Do you know Dr. Srihari at the State University of New
- 2 York at Buffalo?
- 3 A. Yes, I do.

- 4 Q. The error rates associated with his -- and I'm going to
- 5 call it a machine -- are better than the error rates that you
- 6 have found associated with the human beings that you have
- 7 identified or have self-identified as forensic document
- 8 examiners?
- 9 A. I completely disagree with your statement.
- 10 MR. KISH: Thank you. I have no more questions.
- 11 THE COURT: Mr. Vineyard?
- 12 REDIRECT EXAMINATION
- 13 BY MR. VINEYARD:
- 14 Q. Dr. Kam, if you would, explain why you completely disagree
- 15 with that statement.
- 16 A. Yes. Because of the fact that what has happened in the
- 17 tests that were done by Dr. Srihari used a completely different
- 18 set of documents and a completely different methodology. And I
- 19 think that before we can -- before we can go ahead and
- 20 attribute these numbers and compare them to document examiners,
- 21 we probably will have to do much more work, you know, in making
- 22 sure that we are really comparing our data exactly the same.
- It is true that if you just look on paper on the
- 24 numbers, the numbers that he has are better; it is not yet
- 25 clear that, you know, the populations that were tested, that

- 1 the document set that was tested here, that those are the same,
- 2 are inclusive enough and so on.

- 3 So I would very much hesitate to jump to conclusion
- 4 that one can really sit down now and do this kind of comparison
- 5 {sic}.
- 6 Q. Okay.
- 7 A. And please allow me one more statement, because I think it
- 8 is somewhat important: Also remember that the threshold in the
- 9 case of Dr. Srihari was different than my threshold. I
- 10 required a very high level of certainty, which is not -- and I
- 11 believe that there, there is a threshold that it's not clear
- 12 that his threshold and my threshold are the same.
- 13 For example, if I went down, for example, from the
- 14 two highest of the nine points and I told you that everything
- 15 to the right of the middle is correct, or incorrect, then, I
- 16 may have found error rates which would be much better, but this
- 17 is not what I have done, and so I really don't believe that it
- 18 is fair to do this kind of --
- 19 Q. And if you would, to address just kind of the last point
- 20 that you're making there, document examiners have a nine-point
- 21 scale or some scale of range of certainty?
- 22 A. Yes.
- 23 Q. What would have been the effect in your studies of
- 24 forensic document examiners failing to reach the certainty
- 25 level that you required? How would that affect their --

- 2 looks higher {sic}. Here is the situation: If you took my
- 3 test and you had an inclination that this was written by that
- 4 person that did not rise to this high level, then I did not
- 5 count it as the right answer. In other words, in a way, more
- 6 conservatism was punished in the way that I graded that test.
- 7 Q. So could that explain the 87 percent rate that forensic
- 8 document examiners achieved?
- 9 A. I really don't know. I very much hesitate, you know, to
- 10 speculate on these things.
- 11 O. Certainly. Is there any other areas you were asked about
- 12 on cross-examination that you need to clarify or complete?
- 13 A. No. I think we are fine.
- MR. VINEYARD: No further questions.
- THE COURT: Anything else, Mr. Kish?
- MR. KISH: No, ma'am.
- 17 THE COURT: Dr. Kam, you may step down.
- 18 THE WITNESS: Thank you.
- 19 MR. KISH: I'm assuming that Mr. Vineyard is done
- 20 with his witnesses for today, because I did have a witness to
- 21 call, if the Court still has some time?
- THE COURT: Yes.
- MR. KISH: Okay. Should I proceed now?
- 24 THE COURT: Certainly.
- MR. KISH: I will go and get them.

- 1 THE COURT: Well, Mr. Kish, let me ask you, how long
- 2 do you think she will take? I'm wondering if we need to take a
- 3 little break now.
- 4 MR. KISH: My guess is she will take about an hour,
- 5 Judge.
- 6 THE COURT: All right. Why don't we take a
- 7 ten-minute break?
- 8 MR. KISH: That's fine, Judge.
- 9 (A recess was had, after which the following proceedings
- 10 continued in open court.)
- 11 (Defendant LeCroy present.)
- 12 THE DEPUTY CLERK: Please stand and raise your right
- 13 hand.
- 14 CAROLE E. CHASKI, DEFENDANT'S WITNESS, SWORN
- 15 THE DEPUTY CLERK: Please be seated and state your
- 16 full name for the record.
- 17 THE WITNESS: My name is Carole E. Chaski;
- 18 C-a-r-o-l-e; middle initial, E.; C-h-a-s-k-i.
- 19 DIRECT EXAMINATION
- 20 BY MR. KISH:
- 21 Q. Ms. Chaski, if you will pull your chair forward to that
- 22 microphone a little bit, because you have a relatively soft
- 23 voice, and speak up for us.
- 24 A. It doesn't pull.
- 25 THE COURT: And maybe you can turn the microphone

- 1 towards you.
- THE WITNESS: How is that, is that better?
- 3 MR. KISH: Yes, ma'am
- 4 BY MR. KISH:
- 5 Q. Ms. Chaski, what is your current occupation?
- 6 A. I'm the executive director of the Institute for Linguistic
- 7 Evidence, which is a nonprofit research organization primarily
- 8 funded by the U.S. Department of Justice, National Institute of
- 9 Justice, and secondarily funded by services to the law
- 10 enforcement and legal community regarding the linguistic
- 11 techniques for determining authorship. And I'm
- 12 also --
- 13 Q. I'm sorry, I didn't mean to interrupt, but I was going to
- 14 say, why don't you give us a little idea of your educational
- 15 background?
- 16 A. Okay. I earned my bachelor's degree magna cum laude at
- 17 Brenmar College in Pennsylvania, in ancient Greek and English,
- 18 double majored. I earned a masters of education in the
- 19 psychology of reading at the University of Delaware. I earned
- 20 another masters in linguistics at Brown University, and then
- 21 earned my Ph.D. in linguistics from the Department of Cognitive
- 22 and Linguistic Sciences at Brown University.
- 23 Q. All right. And I will call you Dr. Chaski, if that's all
- 24 right with you?
- 25 A. That's fine.

1 Q. Dr. Chaski, give us a brief overview of what you would

- 2 consider the major areas of your inquiry in your academic
- 3 career?
- 4 A. I specialized in syntax computational linguistics and
- 5 language change.
- 6 Q. What is syntax, Dr. Chaski?
- 7 A. Syntax is the way we put our words together so that we
- 8 actually make sense to one another. I think everybody has had
- 9 the experience where we can read a dictionary in a foreign
- 10 language and kind of get the gist of something but we really
- 11 don't know what something means until we know how we put those
- 12 words together. So syntax is about the universal principles
- 13 and then the language-specific principles of how we put words
- 14 together so that they combine their meanings into larger
- 15 messages.
- 16 Q. Are there sort of subcategories within the field of
- 17 syntax?
- 18 A. (No response.)
- 19 Q. Actually, I asked that question incorrectly; I was talking
- 20 about the field of linguistics.
- 21 A. Yes, syntax is a primary field within linguistics.
- 22 Another primary field within linguistics is phenology, sounds,
- 23 because, frankly, language is a way to put together symbols so
- 24 that we get meaning across to each other, and we do that with
- 25 sounds, or if we're deaf, we do it with hand motions. But the

- 1 point is that we're always trying to get our meaning across and
- 2 we have to get it through some medium to do that. So syntax
- 3 and phenology are primary fields along with meaning,
- 4 semantics.
- 5 And then, there are a lot of fields that use those
- 6 two things. So, for instance, three of those other fields in
- 7 linguistics are psycho linguistics, which is spelled just like
- 8 you would expect, socio linguistics and computational
- 9 linguistics.
- 10 Now, psycho linguistics is about how our cognitive
- 11 system allows us to produce language and use language. What is
- 12 it about the human mind that we're born babbling and then,
- 13 within two years, we're actually pretty good at the language
- 14 around us? It's hard to replicate that once we get to high
- 15 school. So what is it about how we're born, what is it about
- 16 the way the human mind works that enables us to get and produce
- 17 with fluency our native language.
- 18 Q. I'm going to, to speed things up here a little
- 19 bit --
- 20 A. Okay. I'm sorry.
- 21 Q. -- show you what has been marked as Defendant's Exhibit
- 22 Number 3 --
- 23 A. Okay. All right. I could go into professor mode, I'm
- 24 sorry.
- 25 Q. -- and ask you if that is a copy of your curriculum vitae?

- 1 A. Yes.
- 2 MR. KISH: All right. I would move for the admission
- 3 of Defendant's Exhibit Number 3 into evidence.
- 4 THE COURT: Mr. Vineyard?
- 5 MR. VINEYARD: Is this the same as the one you faxed
- 6 yesterday?
- 7 (Pause in the proceedings.)
- 8 MR. VINEYARD: I have no objection, Your Honor.
- 9 THE COURT: It's admitted.
- 10 BY MR. KISH:
- 11 Q. Did your masters in reading education have some impact
- 12 into the field of psycho linguistics you just mentioned to us?
- 13 A. Yes, because one of the ways we understand how the mind
- 14 works with language is through reading. We can test a lot of
- 15 hypotheses about the way we process language by testing the way
- 16 people read, by, you know, understanding how we convert written
- 17 symbols into language, the same way we convert vocal symbols
- 18 into language. It's another medium.
- 19 Q. I'm sorry to interrupt you, but socio linguistics, give us
- 20 a brief overview of that.
- 21 A. Right. Socio linguistics deals with how we use language
- 22 to create and maintain group membership, social relations
- 23 within groups, how we recognize group membership by the way
- 24 people talk.
- 25 I'm sure I sound funny to just about everybody here

- 1 in the courtroom, because I have the Delmarva (phonetic)
- 2 Peninsula accent. Of course, I feel that I sound funny to most
- 3 people in the U.S. because of my Delmarva accent, because my
- 4 accent is from a very tiny, little isolated area of the
- 5 country.
- 6 Q. What is Delmarva, for those who might not have encountered
- 7 it?
- 8 A. It's a geographical peninsula that's made up of part of
- 9 Delaware, part of Maryland and part of Virginia, so that it's
- 10 "Del-Mar-Va." And geographical areas create groups.
- 11 In the mountains, it's kind of hard to get out of the
- 12 mountains, so people who live within the mountains start to
- 13 talk a certain way. People who live by the water, where I
- 14 live -- I'm between the Chesapeake Bay and the Atlantic
- 15 Ocean -- we pretty well get stuck in those kinds of places too,
- 16 so dialects get formed and group membership gets identified
- 17 linguistically after that.
- 18 Q. Computational linguistics?
- 19 A. Computation linguistics is trying to model what we know
- 20 about humans through creating computer programs to operate as
- 21 though they are humans linguistically.
- 22 Q. Now, in order to get into this field, did you have to do
- 23 quite a bit of work in understanding computers first and then
- 24 having them work for you?
- 25 A. Yes. Computational linguistics is typically a joint

- 1 program between computer science and linguistics. So while I
- 2 was at Brown, I took courses within the computer science
- 3 department as well as the linguistics department.
- 4 Q. All right.
- 5 A. And then later on, when I taught computational
- 6 linguistics, I typically taught it within a computer science
- 7 department for both groups of students, computer science
- 8 students and linguistics students.
- 9 Q. Now, did any of your training and any of your many degrees
- 10 have anything to do with forensic linguistics?
- 11 A. No.
- 12 Q. Did you eventually get into a field of forensic
- 13 linguistics, meaning the application of your profession in the
- 14 courtroom setting?
- 15 A. There aren't, to my knowledge, any degrees in forensic
- 16 linguistics at this time; the field is relatively young and
- 17 developing.
- 18 I was a professor at North Carolina State University
- 19 when I received a call from a detective asking me to help on a
- 20 case.
- 21 In North Carolina, death by injection requires
- 22 investigation no matter how obvious it is, what presupposed or
- 23 caused the death. In this case, there were suicide notes left
- $\,$ 24 $\,$ on the home computer, and the issue became who wrote the
- $\,$ suicide notes, did the person who died by injection in his own

- 1 bed actually write those suicide notes or were they written by
- 2 somebody else to cover up a potential murder.
- 3 The crime lab of -- the North Carolina state crime
- 4 lab had already told the detective that without ink, without
- 5 handwriting, without paper, there was no way they could do
- 6 anything for the person. So the detective, W. Allison
- 7 Blackman, just kept looking for somebody, and my name came up
- 8 and, finally, he got ahold of me and said, "Is there any way
- 9 you could help me determine the authorship of something,
- 10 because all I've got is the language itself?"
- 11 Q. Dr. Chaski, I'm going to interrupt you. Was that the
- 12 beginning of your work in forensic linguistics?
- 13 A. Yes, that was my first case.
- 14 Q. Did that result in a TV show?
- 15 A. Yes, on Forensic Files, on Court TV.
- 16 Q. All right.
- 17 A. It also resulted in a case, in a trial.
- 18 Q. Did it result in a conviction?
- 19 A. Yes.
- 20 Q. Of another person?
- 21 A. The person I identified as the author of the note
- 22 confessed on the witness stand that he had, indeed, written the
- 23 notes to cover up his involvement in the crime, and he was
- 24 convicted and he did serve time.
- 25 Q. Since that first time, have you been called upon to either

- 1 consult with attorneys and/or actually testify in court in your
- 2 field?
- 3 A. Yes. Yes, I have.
- 4 Q. About how many cases have you consulted on, Doctor?
- 5 A. I would say -- I'm not sure, but I would say at least ten.
- 6 Q. Okay. Have you testified in court before?
- 7 A. Yes.
- 8 Q. About how many times have you testified?
- 9 A. I think, three. I testified in Maryland Superior Court, I
- 10 testified in the Los Angeles Superior Court, I testified in
- 11 federal court in the District of Colombia.
- 12 Q. Was that a Daubert hearing you testified in?
- 13 A. Yes. I've testified in the Daubert hearing, and my
- 14 technique, the syntactic analysis method, was the subject of
- 15 the Daubert hearing.
- Judge Kennedy ruled that my testimony would be
- 17 completely admissible without the Vanwyk restrictions on
- 18 forensic stylistics, of a different variation of linguistically
- 19 determining authorship, and I was allowed to testify in the
- 20 trial.
- 21 Q. When you have been called upon either to consult or
- 22 actually to testify, has it been only criminal cases?
- 23 A. No. The case in Los Angeles was a civil case.
- 24 Q. When you've been involved in criminal matters, has it only

- 1 A. No. I have worked for the Raleigh Police Department, I
- 2 have worked for the Miami Police Department, and I have worked
- 3 for prosecutors.
- 4 Q. Now, did there come a time when you began an association
- 5 with an entity called The National Institute of Justice?
- 6 A. Yes.
- 7 Q. What is N.I.J.?
- 8 A. The National Institute of Justice, or N.I.J., is
- 9 considered -- it's the research wing of the U.S. Department of
- 10 Justice. So we have within the U.S. Department of Justice,
- 11 there is three branches. There is the law enforcement, or
- 12 operational side, typically known as the FBI, and then there is
- 13 the litigation side, main justice, and then there is this
- 14 support side, which is called Office of Justice Programs. And
- 15 within Office of Justice Programs, or O.J.P., is the Bureau of
- 16 Justice Assistants, the Bureau of Justice Statistics, the
- 17 Juvenile Justice and Delinquency Prevention programs, you know,
- 18 it's the alphabet soup of our world, and within that, one of
- 19 their sister organizations is N.I.J.
- 20 Q. What does N.I.J. do?
- 21 A. N.I.J. funds research projects to improve the criminal
- 22 justice system. Now, that's a quote from its mission
- 23 statement.

- 24 Q. All right. What sort of association did you have with
- 25 N.I.J.?

- 1 A. I'm won a visiting fellowship, which is a research
- 2 position in which the fellow conducts their own research but
- 3 also helps the N.I.J. staff with projects where their expertise
- 4 could be useful to the staff.
- 5 Q. When did you begin that fellowship?
- 6 A. In 1995.
- 7 Q. Why did you decide to leave academia and have this
- 8 fellowship at the N.I.J.?
- 9 A. Well, between 1992 and I first worked with Detective
- 10 Blackman and the prosecutors in Raleigh, and 1995, I had
- 11 several cases in which the same thing happened: The person
- 12 confessed to what my technique had identified as the potential
- 13 author. And I thought to myself that this is either a fluke or
- 14 I'm good at something that I didn't know I was good at, which
- 15 is just as good as being a fluke, or this technique really
- 16 works, in which case what you do as a researcher is you try to
- 17 find funding so that you can pursue the research, so you can
- 18 test it, see if it really works, because no researcher wants to
- 19 have a fluke. I mean, you want to know if it's really working
- 20 or not.
- 21 Q. Okay.
- 22 A. The Office of Sponsored Research at North Carolina State

- 23 found this fellowship, and it was a place that I could go where
- 24 I could really do the work.
- 25 Q. So when you began at N.I.J., what would you describe for

- 1 us as your main tasks?
- 2 A. My main task, my research task was to, first of all,
- 3 figure out what were the linguistic methods or the
- 4 language-based methods for determining authorship that were out
- 5 there floating about in legal space.
- 6 Secondly, my plan and what I did was to develop a
- 7 database where I could test these hypotheses about determining
- 8 authorship linguistically.
- 9 And then the third research-based idea was that if
- 10 any of these were to work once I tested them, then to keep
- 11 going with them, to keep validating them or to refine them or
- 12 to just develop them more.
- Now, I was also asked by my program manager to work
- 14 with the questioned document examiner community.
- 15 Q. Now, let me stop you there for a second. Before your
- 16 program manager comes up to you and says, "Carole, I want you
- 17 to work with the writing guys," or gals, had you ever had any
- 18 work with forensic document examination, the actual looking at
- 19 the lettering and the things of that nature?
- 20 A. Oh, no.
- 21 Q. Okay.

- 22 A. No. I had contact with the questioned document unit of
- 23 the North Carolina state crime lab, because as a result of my
- 24 work with the prosecutor there, the questioned document fellow,
- 25 the guy who ran it, David Dawn (phonetic), found out about me.

- 1 And so we talked about what I was doing versus what they were
- 2 doing, but I didn't train as a handwriting expert or --
- 3 Q. So when you're up at N.I.J., then, what is your task as it
- 4 relates to the field of forensic document examination?
- 5 A. Okay. Well, my task was to try to help them, because the
- 6 program manager had been approached by ASCLD, which is
- 7 A-S-C-L-D, the American Society for Crime Lab Directors -- I
- 8 believe that's what that stands for -- and a case in 1993, I
- 9 believe, the Stazik Bizell case, had come up and handwriting
- 10 had had trouble regarding the Daubert criteria for scientific
- 11 evidence, so I seemed like a person who might be able to help
- 12 them. At least, that was the plan for the program manager, was
- 13 that he had a request from the forensic science community, he
- 14 that had this person that had just come on board who was doing
- 15 some innovative work in author identification and he said, you
- 16 know, "Here, this is a good job for you to do."
- 17 Q. So what did you do?
- 18 A. Well, the first thing I did was just try to meet the
- 19 people in the field and figure out which crime labs were doing
- 20 what and what was available, so I found out about the Secret

- 21 Service and their program, which was a program that was
- 22 developed in Germany for document categorization based on
- 23 handwriting.
- I contacted the FBI unit, the questioned document
- 25 unit. At that time, it was directed by Richard Stancko,

- 1 S-t-a-n-c-k-o. My contact at the Secret Service was Richard
- 2 Dusak, D-u-s-a-k, And Tony Cantu (phonetic), the crime lab
- 3 director there. I contacted the postal service.
- 4 And I basically found out who were the players in
- 5 this field. And what I found was, number one, there was no
- 6 academic connection, there were no academic degrees, there were
- 7 no academic programs in this, there were no connections, even
- 8 partnerships between academic fields and this forensic
- 9 technique.
- 10 Secondly, I found out there were no databases of
- 11 documents, even though it seemed apparent that there were
- 12 enormous amounts of documents going through these crime labs.
- 13 Q. Did that surprise you, as a researcher?
- 14 A. Yes; it amazed me.
- 15 Q. Why? Why?
- 16 A. Because one of the hardest things to do in any kind of
- 17 research is to collect data, and so if you have data setting
- 18 about and you don't use it, it seems like such an enormous
- 19 waste. So for someone as a linguist, who has to actually go

- 20 out and pay people to perform linguistically or to produce
- 21 documents, you know, it seemed as though there was this
- 22 enormous wealth of information that just wasn't being used at
- 23 all.
- 24 And, in fact, I discussed this with some people at
- 25 the FBI, that, you know, you have all of this stuff, why don't

- 1 you do anything with it? And they basically said, well, we
- 2 don't really have time. You know, we have to produce all the
- 3 time and we don't really have time to actually sit back and
- 4 look at all this stuff, what we're doing, you know. So
- 5 essentially, what they did is just box it up and, you know, it
- 6 would just be boxed up.
- 7 Q. So after you learned these aspects of the forensic
- 8 document world, did you put together anything?
- 9 A. Yes.
- 10 Q. What was that?
- 11 A. So I planned and held in the summer of 1996 a meeting to
- 12 -- a research agenda planning meeting -- okay -- and I brought
- 13 together researchers whose work I thought could connect to this
- 14 community. I brought together a neurologist who specialized in
- 15 hand/eye coordination and muscle control. I brought in -- I
- 16 believe she was at Salk Institute, but I'm not sure. I can't
- 17 remember, but it was someplace in California. I brought
- 18 together a computer scientist, who specialized in pattern

- 19 recognition techniques, brought in prosecutors who had dealt
- 20 with Daubert challenges, brought in questioned document
- 21 examiners. I brought in another forensic linguist who worked
- 22 with some of the questioned document examiners. I brought in
- 23 all of the federal agencies that had anything to do with this
- 24 as well as the National Institute of Science and -- excuse me,
- 25 yes, the National Institute of Standards in Technology, because

- 1 they had funded and were continually funding the creation of
- 2 standards for handwriting recognition programs.
- 3 You know, when PDAs came out and nobody wanted to
- 4 type on those tiny little screens, so people were developing
- 5 handwriting recognition, like graffiti symbols, N.I.S.T. was
- 6 involved in developing that so that all the little PDAs would
- 7 have the same kind of standards.
- 8 Q. Now, after you brought everybody together --
- 9 A. Brought everybody in.
- 10 Q. -- what happened?
- 11 A. Well, everybody presented, basically, answers to the same
- 12 question: What do you want done, or how could you help this
- 13 field, what could you offer? And at the end of it, we really
- 14 didn't know how to implement these ideas.
- 15 One issue that did come out was there should
- 16 definitely be a database for this field that everybody can have
- 17 access to and work with. And that was essentially the N.I.S.T.

- 18 idea, because that's what N.I.S.T. does. For handwriting
- 19 recognition, N.I.S.T. runs the Uni-Pen Project (phonetic),
- 20 which is this huge, you know, enormous collection of
- 21 handwriting samples so that all of the techniques get tested on
- 22 the same set.
- 23 Q. Dr. Chaski, I'm going to interrupt for a second.
- 24 A. Okay.
- 25 Q. Did you eventually make a proposal to the questioned

- 1 document community?
- 2 A. Yes.
- 3 Q. And what was that proposal?
- 4 A. Well, in December of that year, I brought back together
- 5 just the feds, and the feds and I said, "What can we do? Maybe
- 6 the local and private industry can't do anything, but what
- 7 could the federal government do?" And at that meeting that
- 8 was held at N.I.S.T. in Gaithersberg, Maryland, the consensus
- 9 was that I should ask the FBI to initiate a technical working
- 10 group on document examination, which later became known as
- 11 TWGDOC, T-W-G-D-O-C.
- 12 And the idea was that TWGDOC could bring together the
- 13 handwriting community and begin to answer some of these
- 14 questions about the procedures, reproducibility of results, the
- 15 database, standardization, so that everybody was doing the same
- 16 thing.

- 17 Q. When there was this idea of putting together a working
- 18 group on standards, did you eventually present something to the
- 19 group?
- 20 A. Yes.
- 21 Q. How was it received?
- 22 A. Well, one person in the group balled it up and threw it at
- 23 me; it was not received well.
- 24 Q. Okay. I am going to show you two items that have been
- 25 admitted into evidence as Defendant's or Government's Exhibits

- 1 20 and 21. Do you recognize these items?
- 2 A. (Reviews exhibits.)
- 3 (Pause in the proceedings.)
- 4 THE WITNESS: I believe that this was not a product
- 5 of TWGDOC.
- 6 BY MR. KISH:
- 7 Q. When you say "this," what item are you referring to?
- 8 A. I'm looking at Government Exhibit 20 and --
- 9 Q. And what's the heading of Government's Exhibit 20, ma'am?
- 10 A. "Standard Guide for Examination of Handwritten Items>".
- 11 Q. Now, was this TWG, which I think stands for Technical
- 12 Working Group --
- 13 A. Yes.
- 14 Q. -- was this TWG with which you were working eventually
- 15 superceded by a different group run by the FBI?

- 16 A. Oh, no. The one I was working with was run by the FBI.
- 17 Q. Okay. All right. And if you could put those down and
- 18 we'll move along?
- 19 A. Because I did ask the FBI and the FBI agreed and they said
- 20 that they would start putting it together and they put Kathleen
- 21 Mills in charge of it, and she and I worked together to
- 22 populate the first planning panel and, then, to populate the
- 23 subcommittees that were formed.
- Now, I do believe that ASTM had prior to that put
- 25 together something or there was a group headed by Peter

- 1 Tytel --
- 2 Q. Okay.
- 3 A. -- T-y-t-e-l. And I believe that -- I was not involved in
- 4 the ASTM work.
- 5 Q. Okay. Were you involved in a different parallel effort to
- 6 put together standards for forensic document examiners?
- 7 A. I was involved in TWGDOC.
- 8 Q. Okay. And TWGDOC was run by what entity?
- 9 A. The FBI.
- 10 Q. Okay.
- 11 A. David Attenborough (phonetic).
- 12 $\,$ Q. While you were with TWGDOC, did you ever meet a man that
- 13 you met here today, Moshe Kam?
- 14 A. Yes.

- 15 Q. Did you and he work together when you were trying to put
- 16 together these standards for forensic document examiners?
- 17 A. Yes. We were on the same subcommittee, the subcommittee
- 18 on SOPs, or standard operating procedures. Because he and I
- 19 met on about a monthly basis for almost a year with other
- 20 people on the subcommittee.
- 21 Q. Were you ever with Dr. Kam at one of his times when he
- 22 submitted or administered tests to forensic document examiners
- 23 in the large group setting?
- 24 A. Yes.
- 25 Q. Where was that?

- 1 A. In Arizona, at the American Society for Questioned
- 2 Document Examination, the ASQDE annual meeting.
- 3 Q. Tell us what happened when this test was administered to
- 4 the professionals out in Arizona.
- 5 A. Well, we were seated around tables in groups of five or
- 6 six. Problem sets were given to each table.
- 7 Q. You mean, one set per table?
- 8 A. No. I believe there were several problems.
- 9 Q. Okay.
- 10 A. And we were to take a few minutes at the beginning and
- 11 each individually look over their problem sets and, then, make
- 12 a determination about what we thought as to authorship. And
- 13 then, we talked about them as a group. Then, one person from

- 14 each table presented the results to the entire room.
- 15 Q. Now, during the time of your professional association with
- 16 Dr. Kam --
- 17 A. Uh-huh (affirmative)?
- 18 Q. -- did he ever express any reservations to you about the
- 19 field of forensic document examination?
- 20 A. Yes, he did.
- 21 MR. VINEYARD: Objection, Your Honor. Dr. Kam was
- 22 here and the question could have been asked of Dr. Kam; it
- 23 calls for hearsay. Dr. Kam just left the stand and, now, we're
- 24 asking the question about what he may have said outside of the
- 25 courtroom.

- 1 MR. KISH: Well, this is a hearing under Rule 104, a
- 2 preliminary hearing, and I think that Mr. Vineyard would agree
- 3 that the rules of evidence do not apply and, therefore, hearsay
- 4 is not excluded.
- 5 THE COURT: I'll allow the question.
- 6 MR. VINEYARD: Yes, ma'am.
- 7 BY MR. KISH:
- 8 Q. What did he say about his opinion when you were working
- 9 with him about the field of forensic document examination?
- 10 A. Well, several times in my memory, Dr. Kam and I discussed
- 11 how unscientific the field was and how there was such a great
- 12 misunderstanding about what science is among the practitioners

- 13 of questioned document examination.
- 14 We had that discussion in Washington, D.C., we had
- 15 that discussion in Rockville, Maryland, at the ATF lab and we
- 16 had that discussion in Arizona at the ASQDE meeting.
- 17 Q. Now, I want to jump back --
- 18 A. Oh, we also had that discussion in Nashville, the first
- 19 time I met him, at the American Academy of Forensic Sciences
- 20 meeting.
- 21 Q. Now, during the course of your work with the entity, the
- 22 TWGDOC we have talked about, did you eventually come to know a
- 23 doctor or professor named Srihari?
- 24 A. Yes. In fact, after TWGDOC got started, I realized that
- 25 what the field really needed was just hard-core research, that

- 1 coming up with standard procedures, coming up with proficiency
- 2 tests, were just means of skirting the real Daubert issues.
- I published an article in 1997 as a result of the
- 4 1996 workshop, the agenda meeting, and also the December
- 5 meeting with just the feds, and I realized that TWGDOC was not
- 6 going in that direction at all. So I asked N.I.J. if it would
- 7 be willing to put together a grant solicitation specifically
- 8 for handwriting identification, and my program manager got
- 9 permission from the head of the institute to do that. So ${\tt I}$
- 10 wrote the grant solicitation that would request researchers to
- 11 look at this field and answer the question of writer

- 12 variability, the uniqueness of handwriting.
- 13 We were desperate to get people who would even apply
- 14 for the grant, because, as I mentioned earlier, there were no
- 15 academic connections at all between the crime lab handwriting
- 16 examiners and the research world. So I called up a friend of
- 17 mine who had been the president of the American Association of
- 18 Computational Linguists, A.C.L., and I asked them who is the
- 19 best person in this country working on handwriting
- 20 recognition.
- 21 You see, there was a well-developed academic research
- 22 base for handwriting recognition, but when you think about it,
- 23 handwriting recognition is like the opposite problem of
- 24 handwriting identification. When I'm just trying to recognize
- 25 everybody's As and Bs, right, what I'm doing is taking

- 1 everything that's individual and chopping it out. So I get
- 2 just what makes your B look like your B that looks like your B
- 3 that looks like my B, because all I want the machine to know is
- 4 that's a B.
- 5 So I said maybe what we could do is get these
- 6 handwriting recognition people to take all of the stuff that
- 7 they don't think means anything --
- 8 Q. Who's the "they" you're talking about?
- 9 A. The researchers --
- 10 Q. Okay.

- 11 A. -- who are chopping out all the individuality, maybe I
- 12 could get them to turn their thinking around and say, well,
- 13 gee, that individuality does matter, it just doesn't matter in
- 14 a field they ever heard of.
- 15 So I called this fellow up and I said, "Who is the
- 16 best?" And he said to me, "Srihari, Dr. Srihari is the best."
- 17 And I said, "I'm going to call that guy up"; I said, "Give me
- 18 some other names," but he said, "he's the one you want."
- 19 Q. To shorten this, were you instrumental in Dr. Srihari
- 20 getting the N.I.J. grant?
- 21 A. Yes. I called Srihari up and said, "There is a huge need
- 22 that your research might accidentally fill. Maybe if you could
- 23 turn your algorithms around." He wrote computer programs. I
- 24 said, "If you could just flip-flop those algorithms, all that
- 25 data that you're just throwing away, maybe you could capture it

- 1 and that's how we could tell what makes your B different from
- 2 my B different from your B, different from anybody else's B."
- 3 Q. Now, this issue of standardization and measurement that
- 4 Dr. Srihari was working on --
- 5 A. Yes?
- 6 $\,$ Q. $\,$ -- did you ever run into that or bring that issue to the
- 7 document examiner community?
- 8 A. Absolutely.
- 9 Q. And what happened?

- 10 A. And this is why I realized that TWGDOC was not going to be
- 11 the way to solve the real problems for this community. At the
- 12 first meeting of the subcommittee on standard operating
- 13 procedures, I brought with me --
- 14 Q. Let me interrupt you again.
- 15 A. Okay.
- 16 Q. During these meetings, did you ever meet a lady by the
- 17 name of Kristin Jackson?
- 18 A. Oh, yes, sir.
- 19 Q. How did you meet Ms. Jackson?
- 20 A. She served on that committee, or I met her maybe at the
- 21 ASQDE. I'm not sure exactly how I met her, but I met her early
- 22 on, while I was at N.I.J.
- 23 Q. Okay. You were telling us, though, about why you thought
- 24 TWGDOC was not going to answer the problems of subjectivity
- 25 within the field of document examination.

- 1 A. Okay. Well, I put together a step-wise procedure that
- 2 would allow us to operationally define terms like consistency
- 3 or difference, because these are terms that are thrown around
- 4 all the time.
- 5 But there was no way for me to know that my meaning
- 6 of consistency was the same as yours, because there was no
- 7 procedure behind it.
- 8 One of the things we do in any kind of social science

- 9 is we define our terms to make sure that what you mean and what
- 10 I mean is the same, exact thing, and we want to define them
- 11 operationally, which means that there is an operation, there is
- 12 a procedure behind the term. If you follow that operation and
- 13 I follow that operation, what we're going to get is the same
- 14 thing. So that's how we know it means the same thing.
- 15 So I put together a step-wise procedure; I said you
- 16 would measure these features from the questioned document, you
- 17 would measure these features from the known document, you would
- 18 take those two separate numbers, run them through a statistical
- 19 test that compares groups. And I think I suggested a very
- 20 simple one like the T test. It really doesn't matter,
- 21 statistics is full of techniques for determining whether
- 22 measurements from one group and measurements from another group
- 23 are significantly different or not.
- 24 Q. Was your suggestion accepted?
- 25 A. No. That was when they threw -- they balled it up and

- 1 threw it at me.
- 2 Q. Did you eventually leave the TWGDOC group?
- 3 A. I'm a slow learner, it took me about three years to leave.
- 4 Q. Why did you leave?
- 5 A. I really tried to stick it out, because I felt that maybe
- 6 there would be some change made within that venue. But
- 7 eventually, I realized it was not going to be about developing

- 8 the field; it was really that the TWGDOC purpose was to simply
- 9 justify the field as it already was.
- 10 In other words, the TWGDOC was not, in my opinion,
- 11 going to try to make the field meet Daubert criteria.
- 12 Q. Now, speaking of attempts to make the field meet the
- 13 Daubert criteria, have you read Dr. Kam's various reports?
- 14 A. Not all of them.
- 15 Q. Have you read any of them?
- 16 A. Yes.
- 17 O. All right. Which ones have you read?
- 18 A. I have read the one that was published in The Journal of
- 19 Forensic Science regarding the proficiency testing of examiners
- 20 versus lay people.
- 21 Q. All right. And you do have a background in statistics
- 22 yourself, did you say?
- 23 A. Well, I'm not a statistician but I have used statistical
- 24 tools in my research since 1981.
- 25 Q. And do you know from Dr. Kam's data that when it comes to

- 1 making accurate comparisons, laypersons and professional
- 2 document examiners tend to make the same match at about the
- 3 same rate? Have you read that?
- 4 A. Yes.
- 5 Q. Have you also read that when it comes to making errors,
- 6 the lay people tend to make more errors than do the

- 7 professional document examiners?
- 8 A. Yes.
- 9 Q. From your point as a researcher, those two sets of
- 10 statistics, can they be separated or do they always have to be
- 11 considered together?
- 12 A. Well, when you're discussing error rate, which is the
- 13 issue that Daubert brings up -- okay -- there are two types of
- 14 errors that are measured statistically, and that's the errors
- 15 making a false positive and the error of making a false
- 16 negative. So that's the error of, like, saying something is
- 17 the same when it's not -- okay, that's the false positive -- or
- 18 saying that something is different when it really is the same.
- 19 That's the false negative.
- 20 Okay. So when you're talking about error rates, you
- 21 have to add those two rates together, because there is two
- 22 types of errors, so you add those two together.
- 23 Q. When you add those two rates of error together for the
- 24 professional document examiners in Dr. Kam's study, how well do
- 25 the document examiners perform?

- 1 A. About 80 percent of the time, they are correct.
- 2 Q. What grade would you give them if they were in your class
- 3 at school?
- 4 A. At the universities where I have taught and currently
- 5 teach, that would be a C student.

- 6 Q. Now, let's turn back to the field that originally got you
- 7 into the forensic world, linguistics, where you have your
- 8 training.
- 9 A. Uh-huh (affirmative)?
- 10 Q. Did you leave N.I.J.?
- 11 A. Yes.
- 12 Q. Why did you leave N.I.J., what was the main reason you
- 13 left N.I.J.?
- 14 A. Well, the main reason I left N.I.J. is that a fellowship
- 15 should only last for a certain period of time and I didn't want
- 16 to keep living in Washington, D.C., so I ended my fellowship
- 17 but the institute wanted to continue funding my research, so I
- 18 did that.
- 19 Q. What were you researching that was and still is
- 20 continually funded by N.I.J.?
- 21 A. The linguistic method for determining authorship.
- 22 Q. All right. Now, what have you done to test various
- 23 hypotheses in the field of determining if linguistic authorship
- 24 can be done, in other words, if you can tell by linguistic
- 25 techniques who authored or did not author a document?

- 1 A. Okay. Okay. I achieved the goals that I set out during
- 2 my fellowship. I found out what were the common techniques
- 3 that were being used in forensic instances. And there were
- 4 about nine. There were nine hypotheses or ideas about how to

- 5 determine authorship. I created a database. And my funding is
- 6 to continue expanding the database, so I've been continually
- 7 funded -- my funding is ongoing even now.
- 8 And I tested the techniques on the database and I
- 9 published that in forensic linguistics, The International
- 10 Journal of Law, Language and Speech.
- 11 Q. I'm going to show you what has been marked as Defendant's
- 12 Exhibit Number 4.
- 13 A. Yes.
- 14 Q. I'll ask you if you recognize that item?
- 15 A. Yes. This is the article I just mentioned.
- 16 MR. KISH: I would move for the admission of
- 17 Defendant's Exhibit Number 4 into evidence.
- 18 THE COURT: Mr. Vineyard?
- 19 MR. VINEYARD: No objection, Your Honor.
- 20 THE COURT: It's admitted.
- 21 BY MR. KISH:
- 22 Q. Dr. Chaski, of the nine hypotheses that you tested of
- 23 whether these various linguistics techniques can be used to
- 24 either identify an author or exclude an author, is one of those
- 25 hypotheses associated with punctuation?

- 1 A. Yes.
- 2 Q. Is there a difference between something that is just
- 3 regular punctuation and another idea of syntactic punctuation?

- 4 A. Yes.
- 5 Q. What is that difference?
- 6 A. Okay. What I found in the literature, okay, was this idea
- 7 that the punctuation marks that a person uses could be used to
- 8 identify authorship.
- 9 Q. So this is what you found out people saying that they
- 10 claimed they could do?
- 11 A. Yes.
- 12 Q. Okay.
- 13 A. And I found that within two sources that was suggested in
- 14 handwriting examination textbooks such as ones by Osborne,
- 15 O-s-b-o-r-n-e, Hilton and other questioned document examiners.
- 16 And I also found it in a book called Forensic Stylistics by
- 17 Gerald McMenimin, M-c-M-e-n-i-m-i-n.
- 18 Okay. And he, Mr. McMenimin, is closely associated
- 19 with the questioned document examiner community.
- 20 Q. Okay. So did you test the hypothesis that punctuation can
- 21 be used to identify an author or exclude an author?
- 22 A. Yes.
- 23 Q. What did your results show?
- 24 A. Those results. And if I could read --
- 25 Q. Certainly.

- 1 A. -- because I don't want to misstate anything -- I might
- 2 have to explain how this experiment was conducted in order for

- 3 this to make sense.
- 4 Q. We do want to hear about that --
- 5 A. Okay.
- 6 Q. -- so if you could just give us a brief summary of how
- 7 that works.
- 8 A. Okay.
- 9 MR. VINEYARD: What page?
- 10 THE WITNESS: Okay. Yes. Page 12 and 13.
- 11 MR. VINEYARD: Thank you.
- 12 THE WITNESS: Sure. Now, let's start with the idea
- 13 the very simple questioned document examination idea,
- 14 punctuation marks all by themselves, just whatever they are,
- 15 will work.
- 16 This technique -- I'm on the bottom paragraph, page
- 17 12 -- "This technique distinguishes successfully between
- 18 writers O-16 and O-18, even though these two writers
- 19 superficially look alike because of their hyphens. Punctuation
- 20 mark patterns correctly differentiate the questioned document
- 21 from the four non-authors."
- 22 BY MR. KISH:
- 23 Q. So it's good at excluding?
- 24 A. It's good at excluding.
- 25 "But this technique fails to cluster the questioned

- 2 matching.
- 3 Q. Now, just to be fair, there is only a few writers in your
- 4 database; am I right about that?
- 5 A. In the database, there is about a hundred, but in this
- 6 experiment, there were five.
- 7 Q. All right. And tell us what you did to get those five and
- 8 put them together for purposes of this experiment.
- 9 A. Okay. These five writers share social features which make
- 10 them very confusable, okay? So it's like a lineup where you
- 11 try to get people who are already very much alike. It would be
- 12 unfair to have a lineup of four guys and a woman, because the
- 13 woman would stick out like a sore thumb. So when you want to
- 14 make a fair lineup, you try to get people who all look like the
- 15 suspect, and then if the person who is identifying the suspect
- 16 can really tell you that's the one, you know they have good,
- 17 strong ability to pick out the right person. So this
- 18 experimental design was very much like a lineup.
- 19 They were all women, because we know that women and
- 20 men sometimes speak differently in different circumstances.
- 21 They were all about the same age, because we know that
- 22 teenagers speak differently from their parents. We know that
- 23 education can make a difference in how we speak, so these women
- 24 all had about two to three years of college. We know that
- 25 where we grow up can make a difference, so these women were all

- 1 Delmarva dialect people. And constraining them, all right, so
- 2 picking, picking the women so that they are easily confusable,
- 3 all right, means that if a technique works, it must be pretty
- 4 powerful to pick out the right person, just like a very good
- 5 lineup is powerful evidence because it's so good, it was so
- 6 easy to pick the wrong one but the person picked the right one.
- 7 Q. So am I right in assuming that your experiment did not
- 8 show that the technique of looking at punctuation helps the
- 9 person pick the right one?
- 10 A. That's right.
- 11 Q. Other than your experiment in this area on punctuation,
- 12 did your research as a fellow or your private research or any
- 13 of your readings in 25 years in this area, has there ever been
- 14 any other research on the question of whether looking at
- 15 punctuation helps a person identify the author of a document?
- 16 A. No. No. I did it, because it wasn't done, and it was a
- 17 gap that needed to be filled.
- 18 Q. Does your research show you that there is a difference in
- 19 the way that the questioned document community looks at
- 20 punctuation and the way that a professional linguist looks at
- 21 punctuation?
- 22 A. Yes.
- 23 O. What is that difference?
- 24 A. Okay. A linguist looks at punctuation as a way to tell
- 25 where syntactic boundaries are. For instance, we know that

- 1 sentences are syntactic units, right? We combine words until
- 2 we get to a sentence. And so we teach children capitalize the
- 3 beginning of a sentence and put something at the end of a
- 4 sentence and that something at the end of it is a mark, and we
- 5 have all kinds of ends for syntactic units.
- 6 Like commas, they go at sometimes the beginning,
- 7 sometimes, the end, they go at the edges. So a linguist looks
- 8 at punctuation as a way to mark the boundaries of the syntactic
- 9 combinations that are in sentences and in text.
- 10 Now, what's really fascinating from a linguistics
- 11 point of view is that if you take punctuation marks and you
- 12 classify them as where are they the boundary markers -- okay --
- do they mark the boundaries of sentences, do they mark the
- 14 boundaries of clauses, do they mark the boundaries of phrases,
- 15 do they mark the boundaries of words? I mean, some of them
- 16 even mark boundaries inside words, you know, like apostrophe
- 17 S. So what boundaries are they marking?
- 18 These boundaries we know are psychologically real,
- 19 let me tell that. We have known in psycho linguistics we have
- 20 known since the '60s that these units in our language are
- 21 psychologically real. We don't think just in words, we think
- 22 in phrases, we think in clauses, we think in sentences.
- 23 Q. Now, this idea of the way the linguist looks at
- 24 punctuation, does your research show that the forensic document
- 25 community looks at punctuation in a different fashion?

- 1 A. Yes.
- 2 Q. And what do they do?
- 3 A. They look at what are the marks, is there an ampersand
- 4 here, is there an ampersand here, is there a question mark
- 5 here, are there question marks in this document, does somebody
- 6 use doubled exclamation points here, are there doubled
- 7 exclamation points there.
- 8 In other words, they don't look at it all from a
- 9 linguistics point of view, like what is it doing -- okay --
- 10 just what is it.
- 11 Q. Okay. Did you find any research on the forensic document
- 12 communities method of using punctuation?
- 13 A. No. That was why I tested both techniques. I tested the
- 14 one that was from the document community, which is -- well,
- 15 just let me count all the marks up, let me count every type of
- 16 mark there is, whether it's an ellipsis or a period or a comma,
- 17 just let me count them all. And then, that's where we got the
- 18 techniques, where you can differentiate people from it based on
- 19 that but you can't match; you can't say who was the author of
- 20 something based on that. You can say who wasn't the author.
- Now, when you do it with the syntactic
- 22 classification, you can do both -- okay -- it's a good matching
- 23 tool as well as an excluding tool.
- 24 Q. Okay. Are you being paid to testify here today?
- 25 A. Yes, sir.

- 1 Q. How much are you being paid?
- 2 A. \$150 an hour.
- 3 Q. All right.
- 4 MR. KISH: That's all that I have. Thank you, Judge.
- 5 THE WITNESS: Okay.
- 6 THE COURT: Thank you. Mr. Vineyard, how long do you
- 7 anticipate your cross will take?
- 8 MR. VINEYARD: Your Honor, I would ask if I could
- 9 have the opportunity over the lunch hour to review the 60-page
- 10 report or paper, I'm sorry, that has been submitted into
- 11 evidence and I do have some questions about it, if you don't
- 12 mind if we resume after lunch.
- 13 THE COURT: All right. Well, we will take a recess
- 14 until a quarter of 2:00.
- 15 (A recess was had, after which the following proceedings
- 16 continued in open court.)
- 17 (Defendant LeCroy present.)
- 18 CROSS-EXAMINATION
- 19 BY MR. VINEYARD:
- 20 Q. Good afternoon, Dr. Chaski.
- 21 A. Hi, Mr. Vineyard.
- 22 Q. Now, you are the executive director for the Institute of
- 23 Linguistics, Incorporated?
- 24 A. Yes, sir.
- 25 Q. How long have you held that position, ma'am?

- 1 A. Since 1998, five years.
- 2 Q. And was that when the institute was incorporated?
- 3 A. Yes, sir.
- 4 Q. Did you incorporate it?
- 5 A. Yes, sir.
- 6 Q. Does it have employees other than yourself?
- 7 A. I have contractors instead of employees. I contract with
- 8 statisticians and also with data processors.
- 9 Q. And is that for the purpose of assisting you in your
- 10 research?
- 11 A. Yes, sir.
- 12 Q. And is this principally a research institution?
- 13 A. Yes, sir. Our tax exempt status from the IRS is based on
- 14 research as our primary purpose.
- 15 Q. All right. And it's research in your field of
- 16 linguistics?
- 17 A. Yes, sir.
- 18 Q. Help me.
- 19 A. Linquistic methods for determining authorship or forensic
- 20 linguistics, in general.
- 21 Q. All right. Would forensic linguistics be fair?
- 22 A. Yes. Yes.
- 23 Q. And would you agree that your field is about 100 years
- 24 behind the field of forensic document examiners in terms of
- 25 being accepted by courts as expertise for testimony?

- 1 A. Well, I'm not sure if I would agree with that, because the
- 2 syntactic analysis method of determining authorship, the method
- 3 that I have been developing, has passed a Daubert hearing
- 4 without any restrictions as to its admissibility.
- 5 Now, forensic stylistics, it's debatable within
- 6 linguistics as to whether it is linguistics or is it questioned
- 7 document examination, has had restricted admissibility based on
- 8 the Vanwyk ruling, as the result of that Daubert hearing in
- 9 that federal district.
- 10 Q. And the Vanwyk ruling, just so the record is clear, is
- 11 this case United States versus Vanwky, V-a-n-w-y-k, 83 F.Supp.
- 12 515?
- 13 A. Yes, sir. So when you say that it's behind, I would think
- 14 that I would have to interpret it like this: That the standard
- 15 now is the Daubert standard and, within linguistics, one method
- 16 has met the standard, at least by one federal court ruling;
- 17 another method has met it with severe restrictions, because it
- 18 was classified by that Vanwyk court as like handwriting
- 19 examination. And then handwriting examination has had its own
- 20 difficulties with Daubert rulings, as you know.
- 21 Q. Yes, and, as you know, I'm sure, that forensic document
- 22 examiners have been recognized as experts in courts for a
- 23 hundred years?
- 24 A. Certainly.
- 25 Q. And yours has been recognized as recently as your one

- 1 district court case, correct? That's the only district court
- 2 case that you're aware of?
- 3 A. I believe that might be the only Daubert hearing regarding
- 4 it, yes.
- 5 Q. And is that included in your CV, is that listed?
- 6 A. Yes, sir, under "Examples of Forensic Linguistics
- 7 Consulting, "so it's on the second page, Green B. Dalton, U.S.
- 8 Navy.
- 9 Q. So that was in 2000 or 2001?
- 10 A. It was in 2001. June, June of 2001.
- 11 Q. June. And as you noted, within your field of linguistics,
- 12 there are different approaches?
- 13 A. To?
- 14 Q. Different approaches to the field of forensic linguistics
- 15 that you have described?
- 16 A. Yes. Yes. Well, it depends. Forensic linguistics can
- 17 cover a lot of information, so if we're just talking about
- 18 authorship identification, yes, there is definitely my stuff,
- 19 syntactic analysis techniques, which I'm not the only one that
- 20 does, but the syntactic analysis techniques versus the forensic
- 21 stylistics techniques.
- 22 Q. Okay. Now, ma'am, you are not a forensic document
- 23 examiner?
- 24 A. No, sir.
- 25 Q. And you've testified on direct you've not had any training

- 1 as a forensic document examiner nor any experience as a
- 2 forensic document examiner?
- 3 A. That's correct.
- 4 O. Is it fair to say that you don't have a favorable opinion
- 5 of forensic document examiners?
- 6 A. I would say that my opinion of forensic document
- 7 examination is that it is an un-tested field which offers an
- 8 enormous amount of very interesting hypotheses which have not
- 9 yet been researched fully.
- 10 Q. And you understand that every federal court of appeals has
- 11 found forensic document examiners to be qualified as experts to
- 12 testify in federal court, don't you?
- 13 A. No, I didn't know that.
- 14 MR. KISH: Actually, Judge, I object to the form of
- 15 that question in that I think, first off, I disagree with how
- 16 Mr. Vineyard has categorized the rulings of various federal
- 17 courts and, secondly, I think that asking this witness, who has
- 18 not expressed any knowledge of the law, to state her
- 19 understanding of what the characterization of federal rulings
- 20 is improper.
- 21 THE COURT: Mr. Kish, she has been talking about
- 22 Daubert throughout her testimony; I think he is entitled to ask
- 23 the question.
- 24 BY MR. VINEYARD:
- 25 Q. You're not aware that every federal court of appeals in

- 1 the United States has found forensic document examiners to be
- 2 acceptable as expert witnesses, do you?
- 3 A. No, I'm not, because I don't follow the forensic document
- 4 cases as closely as I follow cases having to do with
- 5 linguistics.
- 6 Q. And you're not aware of any federal courts of appeals that
- 7 have accepted linguistics, forensic linguistics as a field of
- 8 expertise, are you?
- 9 A. I don't know if there is an appeal of the Vanwyk decision
- 10 going forward, but the defense in that case did contact me and
- 11 I did a review of the Vanwyk examination. And I have no idea
- 12 whether that will be used in an appeal or not, so that's as far
- 13 as I can tell you about that.
- 14 Q. But as you sit here today, you're not aware of any federal
- 15 appellate court decision --
- 16 A. No, I don't --
- 17 Q. -- in your expertise?
- 18 A. No. I don't search Nexus and I don't have that kind of
- 19 legal expertise.
- 20 Q. Now, when were you contacted about testifying in this
- 21 case, ma'am?
- 22 A. This week.
- 23 Q. This week?
- 24 A. Yes.

25 Q. Okay. And have you had occasion to review any of the

DONNA C. KEEBLE, Official Court Reporter

- 1 writings at issue in this case?
- 2 A. No, sir.
- 3 Q. Although you're not a forensic document examiner, you are
- 4 familiar with forensic document examiners because you've worked
- 5 with them; is that fair?
- 6 A. Yes, sir.
- 7 Q. And am I right that you first began to, I guess, associate
- 8 with forensic document examiners when you went to your
- 9 fellowship at N.I.J.?
- 10 A. Previous to that, I had associated with forensic document
- 11 examiners at the North Carolina State Bureau of Investigation,
- 12 and I had spoken at the Mid-Atlantic Academy of Forensic
- 13 Science conference and met people in the field there.
- 14 Q. Okay. And maybe I misunderstood, I thought your testimony
- 15 on direct was that when you went to work under your fellowship
- 16 at N.I.J. --
- 17 A. Uh-huh (affirmative)?
- 18 Q. -- that that's when you also began to work with forensic
- 19 document examiners?
- 20 A. That's when I began to work with the field, but I had met
- 21 people in the field prior to that. But when I began to
- 22 actually work with developing resources for the field was under
- 23 my fellowship.

- 24 Q. Okay. And actually, when you went there for your
- 25 fellowship, that is, to N.I.J., you were there to do research

- 1 in your own field; is that correct?
- 2 A. Fellows are expected to do both things, to research their
- 3 project and to assist the N.I.J. staff.
- 4 Q. Okay. Was your interest in going there principally to
- 5 conduct research?
- 6 A. Yes, my own interest was principally in that, of course.
- 7 Q. Certainly. Because as I understood it, this task of
- 8 working with forensic document examiners was something you were
- 9 assigned to do by your project manager; is that correct?
- 10 A. I would not characterize the relationship of a research
- 11 fellow and staff as an assignment; it's more like asking for
- 12 help. So the program manager is able to ask any fellow at the
- 13 institute for help if they feel that the fellow's expertise
- 14 might help them make better decisions about what the institute
- 15 should do in the future in terms of funding or assisting.
- 16 Q. Okay. And as I recorded here, I believe you testified
- 17 that your program manager asked you to see if you could, quote,
- 18 "try to help them"?
- 19 A. Yes, sir.
- 20 Q. Is that right?
- 21 A. Right.
- 22 Q. The "them" being forensic document examiners?

- 23 A. Yes.
- 24 Q. Although you didn't have any experience or training in
- 25 that field?

- 1 A. The program manager had been requested to find some way to
- 2 help the field meet the Daubert criteria, and I think it was an
- 3 obvious match that if I was there to meet the Daubert criteria
- 4 for a related issue determining authorship by language that
- 5 things I found out in doing my research would be applicable or
- 6 transferable to the set of problems that they were reaching, so
- 7 I don't think it was a far stretch for transfer of information.
- 8 Q. Uh-huh (affirmative). And it was in that capacity that
- 9 you began to work with TWGDOC?
- 10 A. It was in that capacity that I asked the FBI to initiate
- 11 TWGDOC.
- 12 O. To initiate TWGDOC?
- 13 A. Yes.
- 14 Q. Okay. And approximately how many people participated on
- 15 the subcommittee that you were describing at which you attended
- 16 meetings with Dr. Kam?
- 17 A. Oh, I would say -- I have a list with me which I could
- 18 count, but I would say approximately twelve to fifteen would
- 19 come to the subcommittee meetings.
- 20 Q. Were there upwards of 50 people on the committee?
- 21 A. On the entire TWGDOC itself, probably. Probably.

- 22 Q. But --
- 23 A. But the subcommittee where the work was actually done was
- 24 much smaller.
- 25 Q. And was it on a subcommittee that you testified you worked

- 1 with Dr. Kam?
- 2 A. Yes, and I believe that we also attended general TWGDOC
- 3 meetings at Quantico together.
- 4 Q. And you testified about being present at some testing or
- 5 some -- let me rephrase that.
- 6 A. (Nods head affirmatively.)
- 7 Q. You testified you were present at some meeting in Arizona
- 8 that Dr. Kam was present at with forensic document examiners?
- 9 A. Yes.
- 10 Q. Do you know what the purpose of that meeting was?
- 11 A. As I recall, he was collecting data at the meeting.
- 12 Q. Do you believe that he was collecting data for any of the
- 13 papers that he has published?
- 14 A. I assumed he was.
- 15 Q. Well, do you know that?
- 16 A. I can't remember exactly, but I assumed that -- I knew
- 17 that he was having difficulty getting people to participate,
- 18 getting questioned document examiners to participate in his
- 19 studies. And it was my impression that he had convinced that
- 20 society, the ASQDE, to allow him to perform that testing at

- 21 that meeting so that he could get a large collection of
- 22 document examiners at one time for his data.
- 23 Q. All right. And the picture that you
- 24 painted of --
- 25 A. Uh-huh (affirmative)?

- 1 Q. -- sitting around a table --
- 2 A. Yes, sir?
- 3 Q. -- with several forensic document examiners kind of
- 4 swapping papers with Dr. Kam and with each other, are you
- 5 testifying that that was research that Dr. Kam was doing for
- 6 the purpose of producing any of the papers that have been
- 7 admitted into evidence in this case?
- 8 A. I don't know what he did with that data, but it was my
- 9 impression that he was collecting data at that time.
- 10 Q. But you don't know what he did with that data or whether
- 11 that data was the basis for any of these papers that he has
- 12 published, do you?
- 13 A. No, I do not. I would assume that he would explain that
- 14 in his papers, where his data comes from and how he collects
- 15 his data; that's normal scientific report procedure.
- 16 $\,$ Q. And, ma'am, would you have any reason to question Dr. Kam
- 17 if he testified about the procedures that he employed in how he
- 18 conducted his studies?
- 19 A. Could you repeat the question?

- 20 Q. Would you question the veracity of Dr. Kam if he described
- 21 the procedures about which he collected the data for his
- 22 published reports?
- 23 A. No. Like any scientist, I would trust that the scientist
- 24 is telling the truth about the collection of the data and the
- 25 report.

- 1 Q. And you yourself indicated that you would have contact
- 2 with forensic document examiners apart from studies, wouldn't
- 3 you?
- 4 A. Yes.
- 5 Q. And do you believe that Dr. Kam had contact, perhaps at
- 6 conferences, with forensic document examiners in which he
- 7 interacted with them not for the purposes of collecting data
- 8 for any of his studies?
- 9 A. Well, I'm sure he did.
- 10 Q. And you don't know whether the scene that you described
- 11 for us on your direct testimony, whether that was an example of
- 12 Dr. Kam simply interacting with forensic document examiners as
- 13 opposed to collecting data for a published study, do you?
- 14 A. I don't know whether he decided to do nothing with the
- 15 data that he collected that day; I don't know if the data
- 16 turned out to be unusable; I really don't know anything about
- 17 what he ended up doing with that data.
- 18 Q. Okay. Now, Dr. Chaski, you also testified about some

- 19 comments that you said Dr. Kam made about forensic document
- 20 examination not being a science?
- 21 A. Yes, sir.
- 22 Q. Are you aware of any -- let me strike that and let me
- 23 rephrase.
- 24 A. Okay.
- 25 Q. Are you aware that forensic document examiners are

- 1 tendered as experts based on their technical expertise as
- 2 opposed to their scientific expertise?
- 3 A. Yes, sir.
- 4 Q. And you don't purport or do you purport to testify as a
- 5 scientific expert in your own field?
- 6 A. Linguistics is a social science, so I am classified as a
- 7 social scientist.
- 8 Q. All right. But you understand that forensic document
- 9 examiners are not typically offered as scientists but, rather,
- 10 as technical experts under Daubert?
- 11 A. Actually, at the time that we're discussing, Kumho had not
- 12 been ruled on and, at that time, the discussions always
- 13 included forensic document examination as a science. It was
- 14 not until the Kumho ruling that there was kind of a
- 15 reclassification of the field as a technical expertise.
- 16 $\,$ Q. And so the comments that you testified about from Dr. Kam
- 17 would not reflect on whether he believes that forensic document

- 18 examiners have a skill that could be admissible as expert
- 19 testimony in federal court?
- 20 A. At the time, the context of our conversations and the
- 21 context of TWGDOC, which later went on to be renamed SWGDOC for
- 22 Scientific Working Group, the context of that day, given that
- 23 Kumho had not occurred, was the production of evidence that the
- 24 field is scientific and there had not at that point been the
- 25 splitting of hairs between science and technical expertise. So

- 1 when I am referring to conversations which he and I had about
- 2 the field, we were always discussing it in terms of its
- 3 scientific or non-scientific basis.
- 4 Q. And Dr. Kam's work was an effort to try and establish a
- 5 scientific basis for forensic document examiners; would you
- 6 agree with that?
- 7 A. I would not classify that, because he was not working on
- 8 the basic research issues of the uniqueness of handwriting; he
- 9 was working on the proficiency of handwriting experts.
- 10 Q. And error rates?
- 11 A. Right.
- 12 Q. You mentioned the uniqueness of handwriting; that was
- 13 Dr. Srihari's work, wasn't it?
- 14 A. Yes, and that came after Dr. Kam's work.
- 15 Q. And you're familiar with Dr. Srihari's published paper in
- 16 that field?

- 17 A. I'm familiar with it, but I haven't read it extremely well
- 18 in a while.
- 19 Q. That is the paper entitled, "Individuality of
- 20 Handwriting, " which is Government's Exhibit 19?
- 21 A. Right. I have seen this, but I can't say that I am an
- 22 expert in it. I couldn't necessarily point to chapter and
- 23 verse of each thing. But I do know this work because I was
- 24 also asked by N.I.J. to review the progress of his grant along
- 25 the way, as a panel of us were invited in. Richard Dusak from

- 1 the Secret Service, I was on it, there were some private
- 2 examiners and also some statisticians who were asked to come in
- 3 along as Dr. Srihari was producing different reports during his
- 4 grant.
- 5 Q. Did you find any problems with Dr. Srihari's work?
- 6 A. Yes.
- 7 Q. And have you published in that area?
- 8 A. Pardon me?
- 9 Q. Have you published in that area?
- 10 A. No, I have not.
- 11 Q. So you call into question the results reached and reported
- 12 in Dr. Srihari's paper, "Individuality of Handwriting"?
- 13 A. No.
- 14 Q. You don't?
- 15 A. No. I'm not calling into question the report. Are you

- 16 asking me what the problems are that I have with the research?
- 17 Q. No, ma'am, I haven't asked you that.
- 18 A. Okay.
- 19 Q. I've asked whether your problems affect the opinion that's
- 20 reflected in the study.
- 21 A. Oh, no.
- 22 Q. Okay. They were problems that were not significant enough
- 23 to affect the quality of his research?
- 24 A. Dr. Srihari's research is first-rate. The difficulty I
- 25 have with his research as applying it to questioned document

- 1 examination is this: Dr. Srihari is using a quantified
- 2 computer measurement based technique. His conclusion is based
- 3 on data in which everyone is writing the same, exact words --
- 4 okay -- they all copy the same letter. And oftentimes in basic
- 5 research, we are able to do in the lab a very constrained and
- 6 controlled experiment to look at one single question, but to
- 7 take that basic research out of the lab and put it into
- 8 practice is a different step. And, oftentimes, what works in a
- 9 lab under those conditions won't necessarily work in the field,
- 10 so the result that Dr. Srihari has found is excellent and it's
- 11 extremely encouraging for the field, but whether you can
- 12 transfer that to a series of documents where people are not
- 13 writing the same words at all is a big question.
- 14 And the second big question is whether what the

- 15 machine is doing, which is very quantified and
- 16 replicable -- okay -- whether that rate of individuality
- 17 transfers to humans who do not measure, do not quantify and do
- 18 not replicate each other's work. Again, that's a big
- 19 question.
- 20 So I'm extremely encouraged and I have asked N.I.J.
- 21 to continue to fund him. We share the same program manager.
- 22 In July of this year, the program manager talked to me about
- 23 that work and I said exactly what I'm telling you: His
- 24 technique, I believe, is excellent. It's the same kind of
- 25 technique I was suggesting to TWGDOC when I got the stuff

- 1 balled up and thrown at me to quantify, to measure and to test
- 2 statistically.
- 3 The problem with Dr. Srihari's work when it comes to
- 4 applying that technique to in the field and real-life cases is
- 5 that the document examination community doesn't do anything
- 6 like -- and you can read the TWGDOC guidelines and determine
- 7 that what I'm saying is true -- it's nothing like what people
- 8 actually do.
- 9 Q. And doesn't Dr. Srihari make that very point in his paper,
- 10 that is, he represents that humans are better able to
- 11 distinguish the finer features than computers are; is that
- 12 right?
- 13 A. He has no evidence of that.

- 14 Q. Well, my question is does Dr. Srihari make that conclusion
- 15 by considering finer features, we should be able to make this
- 16 conclusion with a near 100 percent confidence?
- 17 A. Yes, he has no evidence; he says we should be able to. He
- 18 is speculating there as to, you know, what should, should or
- 19 should not be done.
- 20 O. Based on the research that he has done to date.
- 21 A. I would read what you just read not as a research
- 22 statement but as a political statement in which he is asking
- 23 the questioned document community to consider using a
- 24 quantifiable measurement-based technique on the basis of the
- 25 success he has had with the computer.

- 1 Q. And that's your opinion of Dr. Srihari's statement?
- 2 A. Yes. There is a longstanding prejudice within the
- 3 questioned document community against measurement, and it has
- 4 to do with graphology. I am not a graphologist, I have no
- 5 evidence that has convinced me that you can read personality
- 6 from handwriting --
- 7 Q. Which is what graphologists do?
- 8 A. -- which is the core idea behind graphology.
- 9 What is unfortunate is that the baby can get thrown
- 10 out with the bath water. Graphologists have been using
- 11 measurement of slant, height-to-width ratios, those kinds of
- 12 measurements for years, and what to me is very unfortunate

- 13 among the questioned document standard groups such as the
- 14 American Academy of Forensic Sciences, the ASQDE, the American
- 15 Society of Questioned Document Examiners, is this attitude that
- 16 if you measure anything, you must be a graphologist.
- 17 And determining personality from handwriting is not
- 18 the same as determining authorship from handwriting; I agree
- 19 completely with forensic document examiners in that regard.
- 20 But to throw out measurement just because the graphologists do
- 21 it is to cut off their own nose to spite their face. And I
- 22 believe that Dr. Srihari has met up with the same prejudice.
- 23 Before Dr. Srihari's work was funded Dr. Trisha Wills
- 24 had published a study on twins. She had used a
- 25 measurement-based technique. She presented her research at the

- 1 American Academy of Forensic Sciences in, in fact, the same
- 2 year I was presenting a paper to the questioned documents
- 3 unit. Her paper was not well-received, because she used
- 4 measurements.
- 5 Q. You are familiar, somewhat, with how forensic document
- 6 examiners examine questioned documents, aren't you?
- 7 A. Somewhat.
- 8 Q. Somewhat.
- 9 A. (Nods head affirmatively.)
- 10 $\,$ Q. Would you agree that it is the process of examining
- 11 markings on paper?

- 12 A. Yes.
- 13 Q. And your field of expertise deals with the content that is
- 14 on the paper?
- 15 A. No, sir. No, sir, I do not work on the content or the
- 16 meaning of documents at all. My methodology works on the
- 17 structure within, so I don't ever even pay attention to what
- 18 the documents are about.
- 19 O. It's the structure of the words within the document?
- 20 A. The structure of the combinations of the words.
- 21 Q. Okay.
- 22 A. Right.
- 23 Q. I understand that, and perhaps my phrase of content is too
- 24 broad to describe it.
- 25 A. Okay. Okay. Okay.

- 1 Q. But the forensic document examiners are looking at the
- 2 markings on the page, you're looking at the context of the
- 3 words -- excuse me, that's not a word you like.
- 4 You're looking at the relationship of the words in
- 5 the syntax; is that fair?
- 6 A. Yes, that fair. Thank you.
- 7 Q. You understand, as you've indicated, that they don't do
- 8 measurements, forensic document examiners don't do
- 9 measurements?
- 10 A. Right.

- 11 Q. They also don't do counting of marks, do they?
- 12 A. Not to my knowledge.
- 13 Q. I may have misunderstood your testimony on direct; I
- 14 thought you said that forensic document examiners just look at
- 15 marks as, quote, "just counting marks." Did I misunderstand
- 16 what you meant by that?
- 17 A. We, let me explain it. I have seen document -- forensic
- 18 document examiners make charts in which they chart every
- 19 instance of a certain mark. Those could be counts, and when we
- 20 look at chart and we see a lot in a row and then a very little
- 21 in another row, it's obvious that we at least make a count of
- 22 there is a lot and there is a little, but in terms of actually
- 23 using those counts, for statistical purposes, the document
- 24 examiners don't do that.
- 25 Q. They are looking -- excuse me, they are looking at forms

- 1 and shapes of letters; would you agree with that?
- 2 A. Yes.
- 3 Q. Forms and shapes of any writing on the page?
- 4 A. Yes.
- 5 Q. Including punctuation?
- 6 A. Yes.
- 7 $\,$ Q. And your research paper, which I believe is Defense
- 8 Exhibit 3 --
- 9 A. Four.

- 10 Q. Four, excuse me.
- 11 A. Uh-huh (affirmative).
- 12 Q. Now, you're not testing forensic document examiners in
- 13 this study, are you?
- 14 A. No.
- 15 Q. It's a test related to your field of expertise?
- 16 A. Well, it's not a proficiency test at all.
- 17 Q. Let me say this: It's a study?
- 18 A. It's not a proficiency test in that I'm not testing
- 19 examiners; I'm testing techniques for their validity.
- 20 Q. Okay.
- 21 A. Okay.
- 22 Q. And I want to direct your attention to page
- 23 12 --
- 24 A. Uh-huh (affirmative)?
- 25 Q. And if you could -- I think you were going to volunteer to

- 1 do this on direct but did not, and that is tell us what you did
- 2 in the study.
- 3 A. I took five writers whose socio-linguistic characteristics
- 4 are very similar, so you're looking for a lineup of people who
- 5 are already very alike, and then testing different techniques
- 6 to determine whether those techniques successfully
- 7 differentiate the documents written by different people or put
- 8 together the documents written by one person. So it's

- 9 differentiating or clustering.
- 10 And on page 12, what that shows is a list of
- 11 punctuation marks, ellipsis, period, comma, semicolon, colon,
- 12 apostrophe, question mark and so forth, and then how many times
- 13 they occur in each writer's documents.
- 14 Q. That is a counting of --
- 15 A. That's a counting, yes.
- 16 Q. -- of how frequently?
- 17 A. Yes.
- 18 Q. And the conclusion that you reached is in terms of
- 19 discriminating between writers, the technique, which would be
- 20 the techniques in your field, accurately discriminates 13 out
- 21 of 14 times or is 92.8 percent successful, with an error rate
- of 7.1 percent for discrimination?
- 23 A. Yes, sir.
- 24 Q. Is that correct?
- 25 A. Uh-huh (affirmative).

- 1 Q. But in terms of clustering a document with this actual
- 2 author, the technique fails, that is, the techniques of your
- 3 field fail?
- 4 A. No. I'm discussing the technique of punctuation marks,
- 5 whether they occur or do not occur in documents.
- 6 Q. Whether they can be used to determine by your field of
- 7 expertise the authorship?

- 8 A. The idea that I'm testing is this: Do occurrences of
- 9 punctuation marks accurately identify authorship?
- 10 Okay. Now, how do you test that idea? Do
- 11 punctuation marks work to identify the author of a document?
- 12 Q. In your field of expertise --
- 13 A. No, this is --
- 14 Q. -- it distinguishes --
- 15 A. No, this is an idea that if you read the standard
- 16 textbooks in questioned document examination, you will find the
- 17 same idea, perhaps, not operationalized {sic} with an actual
- 18 counting, but you will find lists of punctuation marks and see
- 19 do they occur in this document, do they occur in that document.
- 20 Q. But in terms of your study, no forensic document examiners
- 21 participated in this, correct?
- 22 A. I'm not testing document examiners, sir; I'm not doing
- 23 what Dr. Kam is doing, testing proficiency of people. I'm
- 24 testing the accuracy of ideas --
- 25 Q. And --

- 1 A. -- of techniques.
- 2 Q. Okay. And the ideas and techniques that you're testing
- 3 are in your field of expertise --
- 4 A. No.
- 5 Q. -- not in the field of forensic document examination?
- 6 A. No. I would disagree with you on that, because if you

- 7 read the standard techniques -- and if I could refer to Dewayne
- 8 Dillon (phonetic), a very well respected document examiner from
- 9 the West Coast, if I could refer to his review published in The
- 10 Journal of Forensic Science of McMenimin's book Forensic
- 11 Stylistics, he mentions that this is something that questioned
- 12 document examiners use.
- 13 Q. That is, punctuation?
- 14 A. Uh-huh (affirmative).
- 15 Q. But not for its mere presence but for its appearance in
- 16 the writing?
- 17 A. What is the difference between presence and appearance?
- 18 Q. Well, the shape, for example. Don't you agree that
- 19 forensic document examiners look at the shape of writings on
- 20 paper?
- 21 A. No.
- 22 Q. I thought you had agreed with that before. No?
- 23 A. No. No, because if you would read the review and if you
- 24 read what's written in Hilton, in standard text, not the shape
- 25 of the comma, okay, not whether there is a circle above an I or

- 1 whether the dots are shaped as hearts, okay, that's not the
- 2 issue that I'm talking about, and it's also not the issue that
- 3 the document examiners are talking about.
- 4 Q. Well, now, ma'am, you don't know that, because you're not
- 5 a forensic document examiner, are you?

- 6 A. I'm saying in the standard textbooks, if you read the
- 7 standard textbooks, sir, they are talking about not the shape
- 8 but the simple appearance of those punctuation marks.
- 9 And I'll be happy to show you in the standard
- 10 textbooks that are used for educating document examiners that
- 11 the types of punctuation used is what is being discussed in the
- 12 same breadth as the types of grammatical errors that are being
- 13 made. And Mr. Dillon's point is that questioned document
- 14 examiners actually have no basis in their training to be
- 15 discussing use or occurrence of punctuation or grammatical
- 16 errors, because there is nothing in their training that teaches
- 17 them to know that kind of stuff.
- 18 Q. Based on your understanding of that and the reading that
- 19 you've done in the field in which you have no formal experience
- 20 and training -- if I could --
- 21 A. But a document-- but --
- 22 Q. If you would let me complete the question for the court
- 23 reporter so that we're not talking over each other --
- 24 A. Okay, sure.
- 25 Q. -- Dr. Chaski, your opinion that you just expressed is

- 1 based on your reading, correct?
- 2 A. No. I am basing my opinion on Dewayne Dillon, a forensic
- 3 document examiner's review of McMenimin's work. So you have a
- 4 document examiner, Dewayne Dillon, saying that document

- 5 examiners really have no basis in their training for looking at
- 6 the use of punctuation marks or the occurrence of grammatical
- 7 errors.
- 8 Q. But I'm asking you about the shape of the marking, not its
- 9 use. And I thought you agreed with me earlier that forensic
- 10 document examiners look at shapes of writings on the paper?
- 11 A. That's true.
- 12 Q. Do you retract that?
- 13 A. That's true. But --
- 14 Q. Go ahead.
- 15 A. But in all of the meetings I have attended regarding
- 16 standard operating procedures and the creation of standards for
- 17 how to conduct document examination -- okay -- I've never heard
- 18 these two ideas conflated {sic} in the way that you're trying
- 19 to do right now, sir. I've never heard a confusion between the
- 20 shape of a comma and the occurrence of a comma, and that's a
- 21 distinction that I believe really has to be made quite clear.
- 22 Q. And you're not familiar with the opinion rendered by the
- 23 expert in this case, are you, ma'am --
- 24 A. No.
- 25 Q. -- that is, Mr. Art Anthony?

- 1 A. No. I know that there has been a comment that the
- 2 presence of ellipsis is at issue, and that is not regarding the
- 3 shape of the periods within the ellipsis, to the best of my

- 4 knowledge.
- 5 Q. Well, how did you obtain that knowledge, ma'am, that that
- 6 was an issue?
- 7 A. I was asked if I had ever done any research regarding the
- 8 presence of punctuation marks such as the presence of ellipses
- 9 and I said, yes, in fact, I have done research regarding the
- 10 occurrence of punctuation marks.
- 11 Q. But not about the shape of those marks?
- 12 A. No.
- 13 O. Now, I noticed that in your study on Table 4 -- do you
- 14 have a copy of your study with you?
- 15 A. Uh-huh (affirmative). Yes.
- 16 Q. You had a list of the different forms of punctuation that
- 17 appeared in the writing of these five subjects; is that right?
- 18 A. I would beg to differ with you. I didn't talk about the
- 19 forms of punctuation; I talked about the punctuation marks.
- 20 Q. Okay. Let's go with that and --
- 21 A. Okay. I want to make sure that we're on the same page,
- 22 because, sometimes, you're using shape and, sometimes, you're
- 23 using form. You know, so are we talking about the actual marks
- 24 like punctuation, commas, apostrophes?
- 25 Q. Just so we're clear and the record is clear, let's look at

- 1 Table 4 of this paper.
- 2 A. Okay.

- 3 Q. You have subjects listed. Under subjects, you have listed
- 4 ellipses, the periods.
- 5 A. Subjects goes across, subjects 001, 009, 080, and then
- 6 under those are the punctuation marks that occur.
- 7 Q. Okay. Under the heading "Subjects" in your Table 4 is
- 8 listed ellipsis, period, comma, is that correct? Am I reading
- 9 the right place?
- 10 A. Yes.
- 11 Q. And across from each punctuation mark is listed the number
- 12 of times it occurred in the writing from these five writers,
- 13 isn't it?
- 14 A. Yes.
- 15 Q. How many times did ellipses appear in the writings of your
- 16 five subjects?
- 17 A. Zero.
- 18 Q. No ellipsis appeared in the writings of the five subjects
- 19 of your --
- 20 A. Not in these five. But that's not surprising to me. It
- 21 seems as though it's surprising to you.
- 22 Q. Well, do you think, then, that the presence of ellipsis in
- 23 someone's writing would be a relevant consideration to you in
- 24 your field of expertise?
- 25 A. The relative frequency of any item is important in any

- 2 questioned document examination has no databases, because they
- 3 cannot make any claims about relative frequency of items,
- 4 because they have no databases on which to base a population's
- 5 frequency of items.
- I have 95 other writers in this database, which is
- 7 described in the appendices of this document where ellipses do
- 8 occur.
- 9 Q. But in the study that's reflected on Table 4 --
- 10 A. Uh-huh (affirmative)?
- 11 Q. -- no ellipsis appeared --
- 12 A. No.
- 13 Q. -- in any of the writings?
- 14 A. No. Neither did -- I believe there are some other items
- in here that didn't occur.
- 16 Q. Let me show you what's marked for identification as
- 17 Government's Exhibit -- it has been admitted, I'm sorry, as
- 18 Government's Exhibit 2 --
- 19 A. Okay.
- 20 Q. -- Government's Exhibits 4 and 5 -- these are stapled
- 21 together --
- 22 A. Okay.
- 23 Q. -- as well as Government's Exhibit 6.
- I take it you have not seen these writings before
- 25 now?

- 1 A. I might have seen this one (indicating). I might have had
- 2 it pushed past me.
- 3 Q. If you can just identify them by exhibit number which one
- 4 you think you've seen?
- 5 A. 21CQ, I'm not sure, but I might have seen that one.
- 6 Q. Okay. In those exhibits that I have shown you, do you see
- 7 the presence of ellipsis in each exhibit?
- 8 A. Yes.
- 9 Q. And in your field of expertise, would that be something
- 10 you would want to note if you were examining these questioned
- 11 documents?
- 12 A. If I were to use syntactically classified techniques,
- 13 syntactically classified punctuation techniques?
- 14 Q. If that's your technique.
- 15 A. Each document would be analyzed for each punctuation mark
- 16 in it and that entire array of numbers would be used, so not
- 17 simply one number out of that array but the entire array of
- 18 numbers would be used in a statistical procedure to then
- 19 examine whether those arrays of numbers are statistically
- 20 significantly different or not.
- 21 Q. And then you would use known writings of the subject if
- 22 you were trying to make an identification? For example, if
- 23 these exhibits had been presented to you for identification in
- 24 your field, would you use known writings from the subject to
- 25 reach your opinion?

- 1 A. Yes. I mean, in fact, I didn't realize that these are all
- 2 questioned. Are these all questioned, sir?
- 3 Q. I'm just asking a question, ma'am: Would you use those,
- 4 if those were -- assuming those were all questioned
- 5 documents --
- 6 A. Oh, okay.
- 7 Q. Assuming those were all questioned documents --
- 8 A. Oh, okay.
- 9 Q. -- would then you want samples to compare to make an
- 10 identification?
- 11 A. Yes. The statistical technique I just talked about
- 12 assumed that I was looking at both questioned and known.
- 13 That's why I just realized that these were all questioned.
- 14 Okay. So I would have to do it like this: I would
- 15 take this questioned document, go through every punctuation
- 16 mark, syntactically classify it. That would be one set.
- 17 And then I would take all the knowns --
- 18 Q. Could I ask you just a moment, would the presence of an
- 19 ellipsis in that exhibit -- is that exhibit 2?
- 20 A. 21AQ, exhibit 2, yes.
- 21 Q. Would that be something you would note for that exhibit,
- the presence of ellipsis?
- 23 A. I would be noting the presence of ellipses, the presence
- 24 of apostrophes, periods, exclamation points, ampersands, number
- 25 mark. In other words, every punctuation mark on the page would

- 1 be given as much weight as any other punctuation mark. It
- 2 wouldn't be just one mark being any more important than any of
- 3 the other ones -- okay -- all of the marks would go into a set
- 4 of numbers.
- 5 Then I would have a set of known documents and it
- 6 would be the numbers that would go through the statistical test
- 7 would be one questioned document against the known. I
- 8 wouldn't --
- 9 Q. You would do them individually, is your point?
- 10 A. Yes. I would not include all the questioned.
- 11 Q. So if I were to hand you Government's Exhibits 13 and 14
- 12 and ask you to assume that those were the known handwriting
- 13 samples, is that the sort of knowns that you would look for to
- 14 make your comparison for your analysis?
- 15 A. (Witness reviews document.)
- 16 (Pause in the proceedings.)
- 17 THE WITNESS: The first page of Government's Exhibit
- 18 13 appears to be a different text type from the questioned.
- 19 BY MR. VINEYARD:
- 20 Q. Okay. You've made that analysis in the one minute that
- 21 you have had that document on the stand, ma'am?
- 22 A. Yes, because it's obvious that it's a poem and a list.
- 23 Now, text types differ in known ways. There is a huge amount
- 24 of research done in linguistics on what makes a document belong
- 25 to one text type versus another text type.

- 1 We know, for instance, that love letters are
- 2 different from business letters; poetry is different from
- 3 regulation language.
- 4 Okay. Therefore, we don't compare apples and
- 5 oranges, because any difference that shows up could just be due
- 6 to the difference in text type.
- 7 Q. So you need similar text type --
- 8 A. Yes.
- 9 Q. -- to make your comparisons?
- 10 A. So this first page, I might exclude on the basis of it
- 11 being a poem rather than what looks like a memo or a note.
- 12 Q. Uh-huh (affirmative)?
- 13 A. Okay. Business letters and e-mails, even as close as they
- 14 are, still have text type characteristics so that if you find a
- 15 difference there between them, the difference might not have to
- 16 do with authorship at all, it could just do with the type of
- 17 text you're writing. You know, you might not write a love
- 18 letter the same way you write a legal brief, so you don't want
- 19 to compare those two and say, "Oh, well, look, they are
- 20 different, written by different people." They very well could
- 21 be written by the same person.
- 22 Q. Exactly.
- 23 A. Okay.
- 24 Q. It's just not a sufficient similarity for purposes of your
- 25 comparison?

- 1 A. Well, let me put it to you this way: Garbage in, garbage
- 2 out; you know, if I use bad data, I could come up with a bad
- 3 conclusion, and it's my fault that I allowed data in that I
- 4 shouldn't have used. And every science has the issue of good
- 5 data versus bad data.
- 6 You know, I mean, you can't use DNA that's been
- 7 sitting in a plastic bag; a person would be irresponsible to do
- 8 that, because they would have to say, "I'm sorry, but that data
- 9 is not good enough for me to use."
- 10 So I wouldn't be able to just take a stack, all
- 11 right, and say, "Oh, okay, here, let me count these." You
- 12 know, I would first have to go through and see, well, are we
- 13 using comparable documents.
- 14 And when I say "comparable," I'm talking about
- 15 measurable differences that the science of linguistics already
- 16 gives me. I mean, we have reference works where I can
- 17 differentiate text types, so this is not just something in my
- 18 head -- all right -- but it's actually been done by research on
- 19 databases.
- 20 Q. And the point about databases that was in your direct
- 21 testimony as well, you're familiar with the FISH database, are
- 22 you not?
- 23 A. Yes.
- 24 Q. You're familiar with that?
- 25 A. (Nods head affirmatively.)

- 1 Q. And you had some criticism about their failure of having a
- 2 database, that is, you had proposed a collection of a database
- 3 and that was rejected?
- 4 A. (No response.)
- 5 Q. Did I misunderstand your testimony about that?
- 6 A. I had not proposed -- I'm not sure how you're connecting
- 7 FISH to that. FISH is a computer program, and the Secret
- 8 Service does have a huge database of documents, of questioned
- 9 documents, that has come to them.
- 10 Q. Are they questioned documents --
- 11 A. Yes.
- 12 Q. -- or are they known documents?
- 13 A. Questioned documents. And that's really the big issue, is
- 14 that the postal service supposedly had a database of known
- 15 writers -- okay -- because you can't really use questioned
- 16 documents to test whether there is inter-writer variability, or
- 17 intra-writer variability, because you have no objective fact to
- 18 go back to that says, well, gee, those two really did come from
- 19 different people. So you have to start with a database where
- 20 you already know who wrote everything.
- 21 And that's why Srihari's database, at least he knows
- 22 who wrote every document that went into his test.
- 23 Q. What's the source of your knowledge that the FISH database
- 24 is based on questioned documents as opposed to known writing
- 25 samples?

- 1 A. I was invited to the Secret Service in December of, I
- 2 believe it was, 2002 to meet with Rich Dusak and other people
- 3 in their crime lab, because they wanted to know if I was
- 4 willing to do some, you know, research with them.
- 5 And in actually sitting down and showing me, walking
- 6 me through the FISH database, it became apparent to me that
- 7 they have a lot of writings to compare new threatening letters
- 8 to, but what they are using it for is to see if the new threat
- 9 letter belongs to any of the old threat letters they have, so
- 10 they can figure out if they have serial threats coming from the
- 11 same person, but they don't know who that person is yet, okay?
- 12 So I was surprised, because I thought that they did
- 13 have a database of known writers, but they don't; they just
- 14 have a collection of a bunch of threatening letters that have
- 15 come to public officials.
- 16 This is what caused the project that was funded
- 17 through TIZWIG (phonetic), which, again, I wrote the
- 18 justification to allow TIZWIG to even look at questioned
- 19 document examination; I wanted it to be funded. And the U.S.
- 20 Postal Service, Bob Muleberger and Grant Sperry connected with
- 21 Patel labs and they wrote a grant proposal on the basis of my
- 22 letter to TIZWIG, which is a Department of Defense funding
- 23 agency, asking TIZWIG to consider funding handwriting
- 24 examination based on the first World Trade Center bombing,
- 25 because I said if you look at the first World Trade Center

- 1 bombing, document examination played a role in it, so I said
- 2 this is an important -- that even the Department of Defense
- 3 should consider -- this is pre 9/11 -- should consider putting
- 4 money in here to help this field along.
- 5 TIZWIG did fund it. The problem was that once Patel
- 6 got really working on it, it turned out that the postal service
- 7 database, which Bob Muleberg and Grant Sperry were in charge
- 8 of, didn't actually have clear, well-known identification of
- 9 the documents that they possessed.
- 10 And, again, you know, the test is I have to know
- 11 document A was written by person A, document B was written by
- 12 person B. If I don't know who authored those two documents,
- 13 you know, I can come up with all kinds of stuff. But I'm
- 14 trying to test whether this technique will say document A
- 15 belongs to person A and document B belongs to person B, so it's
- 16 just a nightmare.
- 17 Q. And it's your understanding that the FISH system cannot do
- 18 that?
- 19 A. What the FISH system does is a text categorization; it's
- 20 based on machine learning techniques. And I have an informal
- 21 relationship with Lincoln Labs at M.I.T., and we are both
- 22 working on machine learning techniques, their pattern
- 23 recognition techniques. They are very good at categorizing
- 24 documents, so what FISH does -- and I was really quite
- 25 surprised when I found out what FISH actually does, because I

- 1 had been under the impression that FISH actually could take a
- 2 bunch of documents and attach one to the same writer --
- 3 okay -- and when I actually was allowed to sit down and go
- 4 through it with the user, what FISH does is take a bunch of
- 5 documents and tell me how similar are they. So this document
- 6 might be -- let me just do it by spacial relations.
- 7 This document might be this similar and this document
- 8 then is more similar than this one that's over here
- 9 (indicating).
- 10 Q. It's a sorting system?
- 11 A. Yes.
- 12 Q. It just classifies and sorts but it doesn't actually
- 13 identify authorship. Now, maybe --
- 14 O. But --
- 15 A. -- this distance means something and maybe it doesn't.
- 16 The only way I can tell if it does mean something is if I
- 17 actually know that these two were written by the same person
- 18 and these two that are far apart aren't.
- 19 Q. I mean, isn't that --
- 20 A. But since I don't know -- I'm sorry.
- 21 Q. I'm sorry, I didn't mean to interrupt you.
- 22 A. Since the database is full of people we don't know, you
- 23 know, they are just people, you know, just writing threatening
- 24 letters, maybe this is the significant distance, you know? You

- 1 Q. But isn't the example of the distinction that you've
- 2 described, though, an example in real life of what Dr. Srihari
- 3 found in his studies, that you are able to distinguish
- 4 individual writings?
- 5 A. Yes.
- 6 Q. Okay.
- 7 A. And if he is using also machine learning techniques,
- 8 that's right. That's why his result is so encouraging. I
- 9 mean, I'm proud that I had a role in getting him funded and I
- 10 had a role in convincing him that it was worth using -- you
- 11 know, kind of inverting his techniques for the postal service.
- 12 I'm proud of that, because to me, that's the first
- 13 step toward getting this field into a scientific methodology.
- 14 But the real issue is going to be when he can
- 15 convince the practitioners of this field that what they need to
- 16 do is the same thing that his machines are doing.
- 17 Q. Now, Dr. Chaski, you're not a statistician?
- 18 A. No.
- 19 Q. You readily conceded that, I believe, on direct?
- 20 A. Right.
- 21 Q. But you were asked about statistical findings in Dr. Kam's
- 22 studies?
- 23 A. Right.

- 24 Q. So --
- 25 A. Because social scientists use statistics as part of their

- 1 tool kit.
- 2 Q. But if we want to know the statistical significance of Dr.
- 3 Kam's findings, we should rely on what Dr. Kam has to say about
- 4 those?
- 5 A. Well, he is not a statistician, either.
- 6 Q. His expertise includes statistics, does it not?
- 7 A. No. He is an engineer, so he is not a statistician, and
- 8 my interpretation of type 1 and type 2 error is a standard
- 9 textbook interpretation of what we do with type 1 and type 2
- 10 error.
- 11 Q. So you're not suggesting that we should credit your
- 12 analysis of Dr. Kam's testimony, of Dr. Kam's reports more so
- 13 than his own characterization of those, are you?
- 14 A. I'm saying that I am giving a standard, accepted
- 15 interpretation that error rate is a combination of both type 1
- 16 and type 2 and that Dr. Kam's work has been characterized by
- 17 the community and, perhaps, also by Dr. Kam, as just including
- 18 one type of error, false positives, and ignoring the false
- 19 negatives.
- 20 Q. And it's important to include both of those, is it not?
- 21 A. Yes, sir.
- 22 Q. The point that I was referring to is you were asked to add

- 23 the rates together on direct --
- 24 A. Yes, sir.
- 25 Q. -- in the testimony you gave?

- 1 A. Yes, sir, because the total error rate includes both types
- 2 of missing the mark.
- 3 Q. And you understand that those interrelate, those two
- 4 errors really can't be separated in Dr. Kam's studies?
- 5 A. Oh, he separates them.
- 6 Q. On a chart, he presents them, but you understand that the
- 7 significance in his testing requires considering both matches
- 8 and failure to match?
- 9 A. Yes, yes.
- 10 Q. Okay.
- 11 A. It's a important that he recognizes both; my point was
- 12 that when you combine them, which gives you a realistic
- 13 measure, proficiency levels drop from 87 to 80 percent.
- 14 Q. And how do they drop for individuals who are laypersons?
- 15 A. Pardon?
- 16 Q. What's the percentages, then, for individuals who are
- 17 laypersons?
- 18 A. Oh, it drops from, like, 87 to 50 something or 60
- 19 something.
- 20 Q. So would you agree --
- 21 A. Sure.

- 22 Q. -- that professionals --
- 23 A. Oh, professionals, you're absolutely right, sir,
- 24 professionals are far more cautious than lay people. That's
- 25 what that says, professionals are -- the forensic document

- 1 examiners are far more cautious than lay people.
- 2 But the issue then is if they are that much more
- 3 cautious, why are they not better at the first issue?
- 4 Okay. See, anybody can learn to be cautious about
- 5 anything; that doesn't take any expertise. But to do the first
- 6 test, the matching test, there should be a huge difference,
- 7 right? And there is no difference between the lay people and
- 8 the professionals.
- 9 Q. You're familiar with testing, having been through it?
- 10 A. Yes, sir.
- 11 Q. I don't know if you've been a teacher and have
- 12 administered tests?
- 13 A. Well, I also studied test construction as part of my
- 14 psychology reading degree.
- 15 Q. And if you had a true/false test of 20 questions --
- 16 A. Uh-huh (affirmative)?
- 17 Q. -- and you answered every question true, that was your
- 18 strategy in test-taking, to answer every question true, you
- 19 would get a high factor in terms of trues, you would get every
- 20 single true question right on that test, wouldn't you?

- 21 A. Yes, sir.
- 22 Q. But you would miss every single false
- 23 question --
- 24 A. Yes, sir.
- 25 Q. -- wouldn't you?

- 1 A. Uh-huh (affirmative).
- 2 Q. And couldn't that explain the results that laypersons
- 3 achieved in Dr. Kam's studies, that is, they tended to identify
- 4 documents more frequently than not identifying them; do you
- 5 agree with that?
- 6 A. Test construction --
- 7 Q. Well, let me just ask you if you agree with that or not
- 8 and, then, I'll listen to your explanation.
- 9 A. Oh, yes. I could say the same thing about the
- 10 examiners --
- 11 Q. But the examiners --
- 12 A. -- couldn't I?
- 13 Q. But the examiners -- that's the point, the examiners had a
- 14 very different performance on wrongly identifying the writing
- 15 in Dr. Kam's studies, didn't they, a statistically significant
- 16 difference, didn't they?
- 17 A. Right. They were more cautious. But, you see, when you
- 18 think about proficiency, it all goes back to this construction
- 19 of the test. Okay. Now --

- 20 Q. Ma'am, I don't have a question on the floor.
- 21 MR. KISH: Judge, I think that the witness should be
- 22 allowed to finish the answer. I think that's what she was
- 23 trying to do.
- 24 THE COURT: I'm not sure she was explaining her
- 25 answer. She is entitled to explain an answer, if that's what

- 1 she was doing, but she is not entitled to volunteer information
- 2 when there is no question on the floor.
- 3 MR. VINEYARD: No further questions, Your Honor.
- 4 MR. KISH: I have no more questions for Dr. Chaski,
- 5 Judge.
- 6 THE COURT: You may step down.
- 7 THE WITNESS: Thank you.
- 8 THE COURT: Are there any other witnesses?
- 9 MR. VINEYARD: Well, Your Honor, based on this
- 10 witness's testimony, if it's an area that the Court has some
- 11 desire to hear, from Dr. Kam is here just on this question
- 12 about the FDEs sitting around the table --
- 13 THE COURT: I would like to hear it.
- 14 MR. VINEYARD: -- and I would like to hear what he
- 15 has to say. He's available, Your Honor.
- 16 (Pause in the proceedings.)
- 17 THE COURT: Dr. Kam, if you would, step into the
- 18 witness box again, and you're still under oath.

- 19 THE WITNESS: Yes. May I sit?
- THE COURT: Yes.
- 21 MOSHE KAM, GOVERNMENT WITNESS, PREVIOUSLY SWORN
- 22 REDIRECT EXAMINATION
- 23 BY MR. VINEYARD:
- 24 Q. Dr. Kam, you were asked earlier if you know Dr. Carole
- 25 Chaski?

- 1 A. Yes, I was.
- 2 Q. And have you seen her as you entered the courtroom?
- 3 A. I have seen her just leaving.
- 4 Q. Okay. Sir, do you recall ever attending any conference of
- 5 the American Society of Questioned Document Examiners in
- 6 Arizona at which Ms. Chaski was present?
- 7 A. I'll answer it -- this is two parts -- I was at the ASQDE
- 8 in Arizona, yes; whether she was present or not, I wouldn't
- 9 know.
- 10 Q. Okay. What was your purpose in being at the -- do you
- 11 know what year?
- 12 A. I can check and find out. Should I?
- 13 Q. Yes, sir, if it would help you to refer to something.
- 14 A. Yes.
- 15 (Pause in the proceedings.)
- 16 THE WITNESS: Okay. I think it was 1997 but, you
- 17 know, a year on or off, I wouldn't be able to say.

- 18 BY MR. VINEYARD:
- 19 Q. Were you there to conduct any research for your study?
- 20 A. I was there, I think, primarily because they asked me to
- 21 give a talk, I think. And I also have done some follow-on
- 22 research.
- 23 In fact, I know. Now, I know what's the main reason
- 24 I was there. I'm sorry. I was there to give a talk. I did
- 25 some follow-on work on the 1997 test, but the main reason I was

- 1 there was I brought to that conference some of the examples,
- 2 successful and unsuccessful, from the 1996 test, from the
- 3 previous test that I have done, and what we have done was to
- 4 sit at tables and have people look at these documents. And I
- 5 did not tell them what were the correct results, but I wanted
- 6 to see what will happen if rather than one person is looking at
- 7 them, a group of document examiners would look at them.
- 8 Q. So was this further testing, was this further study?
- 9 A. It was a part of what I would call post -- like, it's
- 10 post-testing. After doing the test, several questions arose,
- 11 so I've done some follow-on work.
- 12 And the most important thing as far as I remember
- 13 from this Arizona event was that with the exception of one
- 14 document that still caused trouble, those documents that caused
- 15 trouble in individual tests were correctly classified when
- 16 several document examiners -- in other words, when there was

- 17 consultation, with the exception of one document. Like, I gave
- 18 it to a table of whatever, like four people or so on, and they
- 19 came back with -- they came back with the correct answer. And
- 20 I think that was the main thing that I wanted to do there.
- 21 I think I've done a few other things. I had a
- 22 collection of tasks following my tests that I ran there, yeah.
- 23 Q. Okay. In any of the studies that have been marked in
- 24 evidence here, did you employ testing procedures where the
- 25 forensic document examiners were all sitting around a table and

- 1 passing the subject of your test around?
- 2 A. I have never published anything about this kind of work.
- 3 I did subsequently work that I didn't even analyze yet where I
- 4 did try to do -- to see what happens when more than one person
- 5 looked at a document. But this is work that is barely in the
- 6 -- barely in the making.
- 7 Q. Okay. And, Dr. Kam, have you ever commented to Dr. Chaski
- 8 an opinion about the field of forensic document examiners
- 9 being, quote, "unscientific"?
- 10 A. First let me start by saying that I don't remember every
- 11 comment that I told Dr. Chaski. If I recollect correctly, my
- 12 interactions with Dr. Chaski were very short and far between.
- 13 I may have made a comment of this nature; if you will
- 14 allow me, I'll elaborate on it. One of the issues that was
- 15 raised in time was whether we can call it a science, and there

- 16 were very strong opinions on both sides. And my opinion was at
- 17 the time, and continues to be now, that forensic document
- 18 examination is a technical skill and not by itself a science in
- 19 the same sense that I were to tell you that 90 percent of the
- 20 work that I do, you know, writing software to solve problems
- 21 for the D.O.D. and things of this nature is not science. It is
- 22 using scientific principles, but it is not science. So it may
- 23 well have been that when I was asked the question, I have used
- 24 the term "unscientific" but in the sense, in the same sense
- 25 that most of the work that I do as an engineer is not science;

- 1 it's application of principles that, you know, have been
- 2 studied by scientists. But in this context, I might have said
- 3 something like that, but it needs to be understood in context.
- 4 I always thought that this is not a science but a
- 5 technical skill.
- 6 Q. And have your studies borne that out?
- 7 A. I tell you, that really, really, this is a matter of
- 8 classification and, really, it's a question of philosophy. At
- 9 what point something ceases to be science and starts to be
- 10 application, I was always on the side that this is application
- 11 and not pure science in the sense, I don't know, that
- 12 developing calculus was pure science. So my view, I've been
- 13 consistent on it over the years that this is a technical skill.
- 14 MR. VINEYARD: No further questions for Dr. Kam, Your

- 15 Honor.
- THE COURT: Mr. Kish?
- 17 RECROSS-EXAMINATION
- 18 BY MR. KISH:
- 19 Q. Dr. Kam, you just looked at a document to help you refresh
- 20 your recollection as to when this meeting in Arizona might have
- 21 been. Can you show me what it is that you looked at?
- 22 A. Yes. I think that the talk that I gave, I think that the
- 23 keynote address, I think it was there. I think that this
- 24 speech -- I think it was the 55th annual meeting. That's why I
- 25 remember it, is I was invited to actually give a talk, and

- 1 that's why I think that this is 1997.
- 2 Again, this is how I was trying to date it, and I may
- 3 be wrong by a year one direction or another. To my best
- 4 recollection, I gave the talk in Arizona. I gave this
- 5 particular talk in Arizona. On my resume, it's page 15.
- 6 $\,$ Q. What about that reference on page 15 of your resume shows
- 7 that anything happened in Arizona?
- 8 A. I'm sorry, I don't understand the question?
- 9 Q. The thing that you just pointed to, which you mentioned
- 10 might have been what prompted your recollection, does not
- 11 mention Arizona anywhere?
- 12 A. It does not mention it anywhere; it is just that I think
- 13 that I gave this talk in Arizona. I remember the talk.

- 14 Q. Okay.
- 15 A. I think I gave it in Arizona.
- 16 Q. Okay. Okay. Do you remember there being a recording
- 17 system there?
- 18 A. There might have been and they wouldn't have told me.
- 19 Q. Okay. So the recording system would be able to pick up
- 20 whether or not you were administering a test or just passing
- 21 out follow-up data?
- 22 A. Oh, sure.
- 23 Q. Okay. Do you have anything in your lab that you keep
- 24 records of your travel and how you bill your time?
- 25 A. I don't bill my time for this kind of travel, so there

- 1 wouldn't be any billing.
- 2 Q. Are there any records that would be of assistance that
- 3 perhaps I could subpoena that would help me determine what you
- 4 took with you on that particular trip?
- 5 A. That would be hard. It has been a long time ago, and I
- 6 very much doubt that.
- 7 Q. Who keeps the records in your lab?
- 8 A. I do.
- 9 Q. And do you have a lab manager?
- 10 A. No.
- 11 Q. You are the only person in charge of the documentation in
- 12 your lab?

- 13 A. Right.
- 14 Q. And where physically is your lab located, sir?
- 15 A. My lab is in Commonwealth 608 --
- 16 Q. Okay.
- 17 A. -- in Drexel University.
- 18 Q. And the physical location of the documents that deal with
- 19 your travel to give keynote addresses and work of that sort,
- 20 where within your lab is that physical documentation?
- 21 A. It probably is not in my lab. If there was a place to
- 22 check like billing for travel --
- 23 Q. Uh-huh (affirmative)?
- 24 A. -- probably this will need to be done in the comptroller's
- 25 office of Drexel University.

- 1 Q. Okay.
- 2 A. Because usually, when I ask for reimbursement, it is to
- 3 that office that I submit my receipts.
- 4 Q. When you would make a trip of this sort to give a speech
- 5 or a presentation at any professional organization, am I safe
- 6 in assuming that you probably prepare some sort of packet of
- 7 your remarks or a paper beforehand?
- 8 A. Yes, I usually do, sure.
- 9 Q. Okay. And so, therefore, you would have a packet that
- 10 would show that you were bringing follow-up research with you,
- 11 I'm assuming?

- 12 A. I assume so, yeah.
- 13 Q. So we should be able to find exactly that you will have a
- 14 file or some collection of data showing that although you were
- 15 handing out tests of forensic document examination, this
- 16 handing out of tests was not the collection of data for any of
- 17 your studies? We should be able to find that, right?
- 18 A. I want to be careful about collection of data, because I
- 19 did collect some data, too, and let me tell you precisely what
- 20 data I was collecting so that we can be completely clear.
- 21 Q. Okay. Okay.
- 22 A. One of the things that I had done in Arizona was that in
- 23 the tests that I have done in 1997, I have done questioned
- 24 question. I'm sorry. In the test that I published in 1997, I
- 25 have done questioned question.

- 1 In Arizona, I also gave out a test that did
- 2 questioned known, and one of the things that I wanted to see is
- 3 if I'm going to see any difference in error rates -- and I have
- 4 seen none -- so this thing ended being a non-event.
- 5 $\,$ Q. Now, you seem to remember specific information you gave
- 6 out in Arizona?
- 7 A. It took me a while to remember what happened in 1997 in
- 8 Arizona.
- 9 Q. But, now, it's becoming more clear, it sounds like, in
- 10 your mind?

- 11 A. Yes, because it took me a minute to try to locate these
- 12 things.
- 13 Q. So --
- 14 A. So let me summarize Arizona, as I remember it.
- 15 Q. Go ahead.
- 16 A. I gave the speech. The main reason why I went there was
- 17 the follow-up.
- 18 Q. Uh-huh (affirmative)?
- 19 A. And the follow-up included giving documents out that were
- 20 unsuccessful and successful in the 1997 test and checking and
- 21 doing questioned/known and doing some questioned/known testing,
- 22 too.
- 23 Q. What month in Arizona was that?
- 24 A. It was summer, and I remember it very well, because in the
- 25 middle of one of these events, something went bad with their

- 1 electricity system and we stayed in the dark for an hour, so
- which messed up a lot of my work, too.
- 3 Q. Sure. Were you out at this meeting for one day or for
- 4 more than one day?
- 5 A. I was there for a couple of days, because the speech was
- 6 on one day --
- 7 Q. Okay.
- 8 A. -- and I think that I was given the opportunity to do the
- 9 other stuff on another day.

- 10 Q. And the other stuff that you're mentioning is the handing
- 11 out of this information you described for us?
- 12 A. Yes, the two things: The doing things in groups and also
- 13 doing some known questioned testing.
- 14 Q. And what you're telling us under oath right now is that
- 15 the handing out of that information on the second day in that
- 16 meeting in Arizona did not result in any data that you used in
- 17 any of your papers?
- 18 A. Absolutely correct.
- 19 MR. KISH: Thank you, Judge.
- THE COURT: Mr. Vineyard, any follow-up?
- 21 MR. VINEYARD: No, Your Honor.
- 22 May Dr. Kam be excused?
- 23 THE COURT: Yes. Dr. Kam, you may be excused.
- 24 MR. VINEYARD: No other witnesses, if I may have a
- 25 moment to confer with Mr. Kish about another matter?

- 1 THE COURT: Certainly, yes.
- THE COURT: Mr. Vineyard, did you want to say
- 3 something?
- 4 MR. VINEYARD: Your Honor, I guess on the briefing
- 5 schedule, then, we will not be doing Dr. Saks' deposition until
- 6 December 5th, and that's going to be prepared by, as I
- 7 understand it, a court reporter in Arizona.
- 8 THE COURT: Is that right?

- 9 MR. KISH: Yes, ma'am.
- 10 THE COURT: Is it going to be a videotape as well?
- 11 MR. KISH: Yes, ma'am, we're going to prepare both
- 12 for your review.
- 13 THE COURT: All right. So the videotape should be
- 14 available immediately?
- MR. KISH: Well, that's a Friday; I'll try to get it
- 16 to you by Monday.
- 17 THE COURT: Okay. All right.
- 18 MR. VINEYARD: And so we won't have that transcript,
- 19 obviously, until sometime thereafter.
- 20 THE COURT: All right. But you all can do your
- 21 briefs? Are you going to need a transcript of the December 5th
- 22 deposition to do your briefs?
- 23 MR. KISH: I would like a short time to see if we can
- 24 get a physical transcript, but I have a feeling we have a good
- 25 idea of what is going to come out at that deposition, so I

- 1 don't think we actually need to build in extra time for the
- 2 transcript itself, but if we could just leave ourselves a
- 3 little leeway just in case some bombshell were to erupt at that
- 4 deposition, I think that might be appropriate.
- 5 THE COURT: Let's see. Well, this is not looking
- 6 good. I will give each of you ten days now, but I want to set
- 7 a date. We're not talking about ten days plus mailing; we're

- 8 talking about ten days, and you all can fax your briefs to each
- 9 other in addition to service by mail or hand or however you do
- 10 it.
- 11 An, Mr. Kish, I presume you will be going first, and
- 12 if the only deposition is on the 5th, oh, let's see, can you
- 13 have it done by the 16th?
- 14 MR. KISH: I'm having my surgery on December 15th.
- THE COURT: Oh, you are?
- MR. KISH: And I have made a promise both to
- 17 Mr. LeCroy, Ms. Kearns and everyone else that I'm going to do
- 18 the best I can to avoid that, you know, causing a problem. But
- 19 I'm in the hospital all that week, and it will take me a couple
- 20 of days to put it together.
- 21 I notice that Christmas is on December -- obviously,
- 22 it's on December 25th, but it's on the Thursday of the
- 23 following week. If I could have until, basically, the 29th,
- 24 which would give me Christmas week after being out of the
- 25 hospital to work on this --

- 1 THE COURT: I don't think we can go that long.
- 2 And there are, of course, three other lawyers on the
- 3 case.
- 4 Mr. Vineyard, what is your proposal or what is your
- 5 availability to have your portion done?
- 6 MR. VINEYARD: Your Honor, I mean, we can begin to

- 7 prepare our brief now, based on the law that's out there. I
- 8 think that the part that may be time consuming is citing to the
- 9 record. Digging through the transcript is going to be the most
- 10 time consuming part. I think the arguments are out there to be
- 11 made and I feel like we could make those relatively quickly.
- 12 We have, of course, a number of motions to respond to
- 13 within ten days from the escape, the attempted escape case; we
- 14 have to factor that in.
- 15 But I had written down December 15th as a date for us
- 16 to file our brief by, and I don't know if that is possible for
- 17 Mr. Kish to file his sometime before that and, then, we would
- 18 reply by the 15th.
- 19 MR. KISH: You know, Judge, maybe that's a good
- 20 proposal, which would be that if I could have until December
- 21 12th, which is the Friday before my surgery, although I'll be
- 22 filing a brief in another matter on the same date, if I could
- 23 have until that date, that would actually be less time, but if
- 24 the government could also be asked to file relatively around
- 25 the same time, I don't think there are any huge surprises as to

- 1 what we're going to be citing to here. I agree with
- 2 Mr. Vineyard the major task we have here is culling through the
- 3 transcripts in order to find the record.
- 4 That way, then, if I file on the 12th and if
- 5 Mr. Vineyard files sometime during the week of the 15th, that

- 6 would give me, if there was any need to file a response,
- 7 Christmas week to do so, which would mean I think all of this
- 8 stuff would be to the Court, in essence, by the end of the
- 9 year.
- 10 THE COURT: It doesn't look like a very happy holiday
- 11 season for anyone, does it?
- 12 Well, Mr. Kish, can you get your brief done by the
- 13 15th, if Mr. -- I mean, Mr. Vineyard, can you get your brief
- 14 done by the 15th, if Mr. Kish has his finished by the 12th?
- 15 MR. VINEYARD: Your Honor, the way this typically
- 16 goes, I would -- and no slight to Mr. Kish but this is just the
- 17 way it works -- I would get to file the brief served on me by
- 18 Friday afternoon, the 12th, and it would be due the following
- 19 Monday. If I could have until Tuesday, that would be
- 20 appreciated, just to have one extra day to work on that.
- 21 If he could file it -- could you file it by noon on
- 22 the 12th?
- MR. KISH: I'll do everything I can.
- 24 MR. VINEYARD: Okay. So if I could have until the
- 25 16th, Your Honor.

- 1 THE COURT: All right. Let's do that. So, Mr. Kish,
- 2 your brief will be due by December the 12th. And then, Mr.
- 3 Vineyard, yours will be due by December 16th, and we will just
- 4 do the best we can, all of us.

- 5 All right. Is there anything further that we need to 6 address?
- 7 MR. VINEYARD: Your Honor, I need to just briefly
- 8 bring up another matter unrelated to the Daubert hearing.
- 9 Yesterday, I was contacted by a citizen within the
- 10 Gainesville Division who called me to report that she
- 11 had been -- and I've discussed this with Mr. Kish, Your Honor
- 12 -- that she was contacted by telephone by an individual who
- 13 represented that she was working on behalf of a defense
- 14 attorney for a rape/murder defendant in Gilmer County, and this
- 15 appeared to be a survey that was being conducted. And the
- 16 citizen was concerned about the questions that were asked and
- 17 concerned about the possibility of tainting the jury pool, and
- 18 I'm not suggesting there was any intent to do that. That's not
- 19 my point. I think, though, there could be an effect of that.
- 20 Polling certainly may have its place as part of
- 21 preparing for this trial, but I think it ought to be anonymous
- 22 polling and polling that doesn't reference facts from which
- 23 potential jurors could say these are facts related to this case
- 24 or may be evidence in this case, and I just thought it was
- 25 significant that a citizen took the trouble to find me as the

- 1 prosecutor in the case to contact. She started by calling the
- 2 local district attorney's office; they were aware of our case,
- 3 and after hearing what she had to say, referred her to me.

- 4 I would ask the Court to inquire ex parte on the 5 record of the defense as to whether they are doing any polling 6 in this case and to inquire what that polling is, because we 7 really believe it would be inappropriate to do case-specific 8 polling that identifies, in any way identifies this case, as 9 opposed to just doing generic polling on this matter. And I say that because, obviously, the population is 10 11 much smaller in the Gainesville Division that we will be 12 drawing from than, say, the Atlanta Division. I think a survey might be less troubling to me than to have the potential for 13 infecting the jury pool that a specific survey like this does. 14 15 I think Mr. Kish certainly doesn't want to do that in 16 open court, but as I understand his position, he doesn't 17 necessarily oppose doing that ex parte, and we would just 18 believe that it's inappropriate to do polling that in any way 19 identifies the facts of this case, similar to the issue that 20 was raised earlier on in this case about pretrial publicity. 21 And I think, remarkably, there has been no pretrial publicity
- 24 publicity does.

this type could produce the same problem that pretrial

that I'm aware of associated with this case, but a polling of

22

23

25 And in a smaller community, people are going to tend

DONNA C. KEEBLE, Official Court Reporter

- $1\,$ $\,$ to talk more with neighbors. And, for example, this citizen
- 2 indicated that she had spoken with a neighbor about the fact

- 3 that she had been called and the questions that had been
- 4 asked. So I would just ask the Court to inquire about that at
- 5 an appropriate time and find out how many of these calls have
- 6 been made already, and we may have some issue to deal with.
- 7 And if it's appropriate, if it's something we need to
- 8 participate in or be made aware of, we would certainly
- 9 appreciate that.
- 10 THE COURT: Well, I'll do it right now. Is there
- 11 anything else that needs to be addressed?
- MR. KISH: Could I just have one second?
- 13 (Pause in the proceedings.)
- 14 MR. KISH: And, Judge, what I was just suggesting to
- 15 Mr. Vineyard is perhaps the Court should make the same inquiry
- 16 of the government ex parte as well.
- 17 THE COURT: Certainly. All right. Well, let's
- 18 start, then, with the defense side now and I'll ask that the
- 19 courtroom be cleared.
- 20 MR. VINEYARD: We will wait outside, Your Honor.
- 21 And, Your Honor, we do not oppose this being under
- 22 seal and believe that it should be under seal, the proceedings
- 23 as part of the record.
- 24 THE COURT: All right. Ms. Keeble, this portion of
- 25 the record is under seal.

2	exception of defense counsel and the defendant.)							
3	(Whereupon, the subsequent proceedings were reported under							
4	seal, the transcript thereto to be sealed confidentially with							
5	the Court.)							
6	(Proceedings concluded.)							
7	* * * * *							
8	CERTIFICATE							
9	I, DONNA C. KEEBLE, Official Court Reporter, certify							
10	that the foregoing pages are a correct transcript from the							
11	record of proceedings in the above-entitled matter.							
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