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Electronically Filed
Aug 08 2018 03:03 p.m.
Elizabeth A. Brown
Clerk of Supreme Court

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ADAM LAXALT
Attorney General
100 North Carson Street
Carson City, Nevada 89701-4717
(702) 687-3538

Counsel for Respondent

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KEANDRE VALENTINE
Case No. 74468

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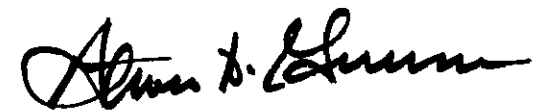
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CLERK OF THE COURT

NWEW
STEVEN B. WOLFSON
Clark County District Attorney
Nevada Bar #001565
AGNES M. LEXIS
Chief Deputy District Attorney
Nevada Bar #011064
200 Lewis Avenue
Las Vegas, Nevada 89155-2212
(702) 671-2500
Attorney for Plaintiff

DISTRICT COURT
CLARK COUNTY, NEVADA

THE STATE OF NEVADA,
Plaintiff,

-vs-

KEANDRE VALENTINE,
#5090875

Defendant.

CASE NO: C-16-316081-1

DEPT NO: III

**THIRD SUPPLEMENTAL NOTICE OF WITNESSES
AND/OR EXPERT WITNESSES
[NRS 174.234]**

TO: KEANDRE VALENTINE, Defendant; and

TO: PUBLIC DEFENDER'S OFFICE, Counsel of Record:

YOU, AND EACH OF YOU, WILL PLEASE TAKE NOTICE that the STATE OF
NEVADA intends to call the following witnesses and/or expert witnesses in its case in chief.

These witnesses are in addition to those witnesses endorsed on the Information or
Indictment and any other witness for which a separate Notice of Witnesses and/or Expert
Witnesses has been filed.

The substance of each expert witness' testimony and copy of all reports made by or at
the direction of the expert witness has been provided in discovery.

A copy of each expert witness' curriculum vitae, if available, is attached hereto.

***Indicates an additional witness**

//

1	NAME	ADDRESS
2	ACEVEDO (Pacheco), JESSICA – LVMPD P#13770 (or designee):	Expert in the field of
3	DNA extractions, comparisons, analysis, and the identification of bodily fluids and is expected	
4	to testify thereto.	
5	ADAMS, TIFFANY - LVMPD P#10072 (or designee):	Expert in the field of DNA
6	extractions, comparisons, analysis, and the identification of bodily fluids and is expected to	
7	testify thereto.	
8	ALEXANDER, JORDAN – 1508 ROBIN ST., LVN 89106	
9	BAS, JENNIFER – LVMPD P#9944 (or designee):	Expert in the field of DNA extractions,
10	comparisons, analysis, and the identification of bodily fluids and is expected to testify thereto.	
11	BASS, MARVIN – 6312 SILVER EDGE ST., NLVN 89031	
12	BILYEU, RICHARD - LVMPD P#7524	
13	BRAVO-TORRES, LAZARO – 1104 LEONARD AVE., LVN 89106	
14	BROWN, JENNIFER (Thomas) – LVMPD P#10074 (or designee):	Expert in the field of
15	DNA extractions, comparisons, analysis, and the identification of bodily fluids and is expected	
16	to testify thereto.	
17	CHARAK, JESSICA – LVMPD P#14785 (or designee):	Expert in the field of DNA
18	extractions, comparisons, analysis, and the identification of bodily fluids and is expected to	
19	testify thereto.	
20	CUSTODIAN OF RECORDS – CLARK COUNTY DETENTION CENTER	
21	CUSTODIAN OF RECORDS - LVMPD COMMUNICATIONS	
22	CUSTODIAN OF RECORDS - LVMPD RECORDS	
23	DANNENBERGER, KIM – LVMPD P#13772 (or designee):	Expert in the field of DNA
24	extractions, comparisons, analysis, and the identification of bodily fluids and is expected to	
25	testify thereto. (USED TO BE TAYLOR)	
26	DAVIDOVIC, MARJORIE – LVMPD P#14726 (or designee):	Expert in the field of DNA
27	extractions, comparisons, analysis, and the identification of bodily fluids and is expected to	
28	testify thereto.	

1 DENTON, STEVE – C/O EZ PAWN, 821 N. RANCHO, LVN
2 DOWLER, CHRISTOPHER - LVMPD P#13730
3 ENDELMAN, DEREK - LVMPD P#14025
4 FAULKNER, DARRELL – 147 BEAVER LN., WACO ,TX 76705
5 FAULKNER, DEBORAH – 147 BEAVER LN., WACO, TX 76705
6 FOSTER, M. – LVMPD P#13221
7 GARCIA, SANTIAGO – 312 ESTELLA AVE., LVN 89107
8 GAUTHIER, KELLIE – LVMPD P#8691 (or designee): Expert in the field of DNA
9 extractions, comparisons, analysis, and the identification of bodily fluids and is expected to
10 testify thereto.
11 GREGORY, TRACY – LVMPD P#9706
12 HENSON, JASON - LVMPD P#3918
13 HUSEBY, BRIANNE – LVMPD P#14783 (or designee): Expert in the field of DNA
14 extractions, comparisons, analysis, and the identification of bodily fluids and is expected to
15 testify thereto.
16 JOHNSON, GAYLE – LVMPD P#10208 (or designee): LATENT PRINT EXAMINER -
17 Expert in the science and techniques of fingerprint comparison, and comparisons done in this
18 case and any reports prepared therefrom.
19 KING, CRAIG – LVMPD P#9971 (or designee): Expert in the field of DNA extractions,
20 comparisons, analysis, and the identification of bodily fluids and is expected to testify thereto.
21 LUDWIG, DEAN - LVMPD P#12963
22 MAJORS, WILLIAM - LVMPD P#7089
23 MARSCHNER, JULIE – LVMPD P#8806 (or designee): Expert in the field of DNA
24 extractions, comparisons, analysis, and the identification of bodily fluids and is expected to
25 testify thereto.
26 MAY, CRYSTAL – LVMPD P#9288 (or designee): Expert in the field of DNA extractions,
27 comparisons, analysis, and the identification of bodily fluids and is expected to testify thereto.
28 MCBRIDE, OMARA – ADDRESS UNKNOWN

1 MURGA, KIM – LVMPD P#10140 (or designee): Expert in the field of DNA extractions,
2 comparisons, analysis, and the identification of bodily fluids and is expected to testify thereto.

3 RETAMOZO, CAROL – LVMPD P#14280 (or designee): Expert in the field of DNA
4 extractions, comparisons, analysis, and the identification of bodily fluids and is expected to
5 testify thereto.

6 RICHARDSON, COURTNEY - LVMPD P#14739

7 ROBERTSON, CASSANDRA – LVMPD P#14653 (or designee): Expert in the field of DNA
8 extractions, comparisons, analysis, and the identification of bodily fluids and is expected to
9 testify thereto.

10 RUBINO, ALLISON – LVMPD P#14784 (or designee): Expert in the field of DNA
11 extractions, comparisons, analysis, and the identification of bodily fluids and is expected to
12 testify thereto.

13 SIMMS, JOSHUA - LVMPD P#15111

14 SMITH, JEFFREY - LVMPD P#8177 (or designee): CRIME SCENE ANALYST: Expert in
15 the identification, documentation, collection and preservation of evidence and is expected to
16 testify as an expert to the identification, documentation, collection and preservation of the
17 evidence in this case.

18 SPRONK, CIERRA - LVMPD P#15128

19 *STEPHENS, EBONY (McGhee) – LVMPD P#5158 (or designee): CRIME SCENE
20 ANALYST: Expert in the identification, documentation, collection and preservation of
21 evidence and is expected to testify as an expert to the identification, documentation, collection
22 and preservation of the evidence in this case.

23 STOCKTON, DAVE - LVMPD P#9989

24 TICANO, T. – LVMPD P#6804

25 TORRES, JUAN CARLOS - 1104 LEONARD AVE., LVN 89106

26 UBBENS, ANDREW - LVMPD P#13119

27 VASQUEZ, ROSA - C/O CCDA, 200 LEWIS AVE., LVN 89101

28 //

1 VIDA, BEATA – LVMPD P#14279 (or designee): Expert in the field of DNA extractions,
2 comparisons, analysis, and the identification of bodily fluids and is expected to testify thereto.

3 WATTS, DAVID - LVMPD P#8463

4 WHITTLE, CHRISTINE – LVMPD P#15383 (or designee): Expert in the field of DNA
5 extractions, comparisons, analysis, and the identification of bodily fluids and is expected to
6 testify thereto.

7 WILLIAMS, SHANISE – 1701 J. STREET, LVN

8 WISE, DAVID - LVMPD P#9838

9 STEVEN B. WOLFSON
10 Clark County District Attorney
Nevada Bar #001565

11
12 BY /s//AGNES M. LEXIS
13 AGNES M. LEXIS
14 Chief Deputy District Attorney
Nevada Bar #011064

15 **CERTIFICATE OF ELECTRONIC FILING**

16 I hereby certify that service of State's Notice was made this 26th day of January, 2017,
17 by Electronic Filing to:

18 PUBLIC DEFENDER'S OFFICE
19 E-mail Address: pdclerk@ClarkCountyNV.gov

20 Shellie Ortega
21 Secretary for the District Attorney's Office

22
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25
26
27
28 mmo/GCU

Curriculum Vitae
Las Vegas Criminalistics Bureau
Statement of Qualifications

Name: Ebony McGhee

P# 5158

Date: 10-1-03

CURRENT CLASSIFICATION		
	<i>Classification</i>	<i>Minimum Qualifications</i>
X	Crime Scene Analyst I	AA Degree with major course work in Criminal Justice, Forensic Science, Physical Science or related field, including specialized training in Crime Scene Investigation.
	Crime Scene Analyst II	18 months - 2 years continuous service with LVMPD as a Crime Scene Analyst I.
	Senior Crime Scene Analyst	Two (2) years as a Crime Scene Analyst II to qualify for the promotional test for Senior Crime Scene Analyst.
	Crime Scene Analyst Supervisor	Four (4) years continuous service with LVMPD and completion of probation as a Senior Crime Scene Analyst. Must have the equivalent of a Bachelor's Degree from an accredited college or university with major course work in Criminal Justice, Forensic Science, Physical Science or related field.
FORMAL EDUCATION		
<i>Institution</i>	<i>Major</i>	<i>Degree/Date</i>
CCSN	Criminal Justice	Associates Degree-1998
TESTIMONY		
<i>Yes</i>	<i>No</i>	
EMPLOYMENT HISTORY		
<i>Employer</i>	<i>Title</i>	<i>Date</i>
LVMPD	Crime Scene Analyst I	5-29-96

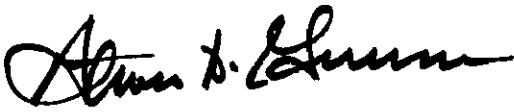
McGHEE, EBONY
CSA I

P# 5158
SS#: 306-86-7688

CRIMINALISTICS BUREAU - FIELD
DOH: 05-29-96

DATE	CLASS TITLE	AGENCY	CREDIT HOURS
01-90 to 06-92	Computer Information Systems	S.N.V.T.C. (Vo-Tech)	5 Semesters
10-07-96	New Civilian Employee Orientation	LVMPD	8
04-03-97	Auto Theft	LVMPD	2
05-27-97	NCIC Certification - Limited Access	LVMPD	7
01-01-98	NCIC Recertification 2/Guide	LVMPD	1
02-10-98	Investigations: Internship	LVMPD	9
08-21-98	K-9 Perimeter Class	LVMPD	3
08-92 to 05-98	Criminal Justice - Degree - Associate of Applied Science (A.A.S.) - dated 05-14-98 - 83 Credits	C.C.S.N.	1,245
01-00 to 05-00	Photography 170	C.C.S.N.	
05-24-00	Training Techniques	LVMPD	8
03-21-01	Patrol Response to Clandestine Drug Labs	LVMPD	2
05-24-01	Ecstasy & Other Drugs, The Pleasure Killers	LVMPD	7.5
07-18-01	Driver's Training II	LVMPD	8
08-27-01	NCIC/NCJIS Training 10132H-IIR	LVMPD	1
08-06 to 08-31-01	Crime Scene Analyst Academy - Criminalistics Bureau	LVMPD	175
09-08 to 09-10-01	Civilian Use of Force and Firearms Training - CCW permit granted	LVMPD	21
10-01-01	RC-Use of Force Video Training - Tape #1	LVMPD	15 Minutes
12-01-01	Field Training - Criminalistics Bureau	LVMPD	400
04-02-02	Chemical Enhancements of Bloodstains, Preliminary Steps	LVMPD	2
04-03-02	Documentation of Footwear & Tire Impressions	LVMPD	1
04-03-02	Major Case Prints	LVMPD	3
04-04-02	Criminal Law	LVMPD	2

DATE	CLASS TITLE	AGENCY	CREDIT HOURS
04-22-02	Forensic Anthropology	LVMPD - Criminalistics Bureau	1.5
05-22-02	Handgun Refresher Training	LVMPD	2
05-22-02	Handgun Qualification 2	LVMPD	1
09-03-02	Firearms Qualification 3	LVMPD	1
10-23-02	Stress Management	LVMPD	2
11-05-02	Handgun Qualification 4	LVMPD	1
03-11-03	Handgun Qualification 1	LVMPD	1
03-27-03	Testifying in Court	LVMPD	7
05-07-03	Handgun Qualification 2	LVMPD	1
06-04-03	Firearms Training Simulator	LVMPD	1


CLERK OF THE COURT

NOTC
STEVEN B. WOLFSON
Clark County District Attorney
Nevada Bar #001565
AGNES M. LEXIS
Chief Deputy District Attorney
Nevada Bar #011064
200 Lewis Avenue
Las Vegas, Nevada 89155-2212
(702) 671-2500
Attorney for Plaintiff

DISTRICT COURT
CLARK COUNTY, NEVADA

THE STATE OF NEVADA,
Plaintiff,

-vs-

KEANDRE VALENTINE,
#5090875
Defendant.

CASE NO: C-16-316081-1

DEPT NO: III

**NOTICE OF INTENT TO SEEK PUNISHMENT AS
A HABITUAL CRIMINAL**

TO: KEANDRE VALENTINE, Defendant; and

TO: PUBLIC DEFENDER'S OFFICE, Counsel of Record:

YOU, AND EACH OF YOU, WILL PLEASE TAKE NOTICE that pursuant to NRS 207.010, the STATE OF NEVADA will seek punishment of Defendant KEANDRE VALENTINE, as a habitual criminal in the event of a felony conviction in the above-entitled action.

That in the event of a felony conviction in the above-entitled action, the STATE OF NEVADA will ask the court to sentence Defendant KEANDRE VALENTINE as a habitual criminal based upon the following felony convictions, to-wit:

1. That on or about 2013, the Defendant was convicted in the State of California, Alameda County, for the crime of First Degree Residential Burglary (felony) in H53709B.

1 2. That on or about 2014, the Defendant was convicted in the State of
2 California, Alameda County, for the crime of Unlawful Driving or Taking of a Vehicle
3 (felony) in H55299.

4 3. That on or about 2014, the Defendant was convicted in the State of
5 California, Alameda County, for the crime of Evading a Police Officer, Will Disregard
6 (felony) in H55299.

7 STEVEN B. WOLFSON
8 Clark County District Attorney
 Nevada Bar #001565

9 BY /s//AGNES M. LEXIS
10 _____
 AGNES M. LEXIS
 Chief Deputy District Attorney
 Nevada Bar #011064

11
12
13 **CERTIFICATE OF ELECTRONIC FILING**

14 I hereby certify that service of State's Notice was made this 27th day of January, 2017,
15 by Electronic Filing to:

16 PUBLIC DEFENDER'S OFFICE
17 E-mail Address: pdclerk@ClarkCountyNV.gov

18 Shellie Ortega
19 Secretary for the District Attorney's Office

20
21
22
23
24
25
26
27
28 mmo/GCU


CLERK OF THE COURT

MOT
STEVEN B. WOLFSON
Clark County District Attorney
Nevada Bar #001565
AGNES M. LEXIS
Chief Deputy District Attorney
Nevada Bar #011064
200 Lewis Avenue
Las Vegas, Nevada 89155-2212
(702) 671-2500
Attorney for Plaintiff

DISTRICT COURT
CLARK COUNTY, NEVADA

THE STATE OF NEVADA,

Plaintiff,

-vs-

KEANDRE VALENTINE,
#5090875

Defendant.

CASE NO: C-16-316081-1

DEPT NO: III

**NOTICE OF MOTION AND MOTION OUTLINING
STATE'S DISCOVERY COMPLIANCE**

DATE OF HEARING: 02/21/17
TIME OF HEARING: 9:00 A.M.

COMES NOW, the State of Nevada, by STEVEN B. WOLFSON, Clark County District Attorney, through AGNES M. LEXIS, Chief Deputy District Attorney, and files this Notice Of Motion And Motion Outlining State's Discovery Compliance.

This Motion is made and based upon all the papers and pleadings on file herein, the attached points and authorities in support hereof, and oral argument at the time of hearing, if deemed necessary by this Honorable Court.

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DATED this 8th day of February, 2017.

BY /s//AGNES M. LEXIS
AGNES M. LEXIS
Chief Deputy District Attorney
Nevada Bar #011064

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On September 1, 2016, Defendant made an oral motion to continue the trial. The State objected and announced ready. Defendant waived his right to a speedy trial. The court vacated the trial date, noting that it was the first trial setting. Trial was reset for February 21, 2017. The court also granted Defendant's Motion for Discovery pursuant to statute and Brady.

1 On January 24, 2017, the State invited defense counsel to conduct a file review. Defense
2 counsel indicated she would be in trial and could not meet on January 27, 2017 to complete
3 the file review. To date, defense counsel has not made an appointment to conduct the file
4 review.

5 On Thursday, January 26, 2017, the State re-disclosed the paper discovery in this case,
6 bate stamped 1-286 and advised defense counsel that a CD with jail calls would be available
7 for pick-up at DA reception. The State attached an ROC to the January 26th email and
8 requested that defense counsel look over the discovery the State has provided and return the
9 signed ROC to the State in one (1) week. In that same email, the State again requested that
10 defense counsel complete a file review. The State also advised defense counsel that it would
11 object to a Motion to Continue Trial and requested that any request for a continuance be
12 submitted in writing, in a timely fashion.

13 On February 7, 2017, the State requested that defense counsel return the signed ROC
14 so it may file it with the court, in advance of the February 16th calendar call date. Defense
15 counsel indicated she had not yet verified the items on the list and refused to sign the ROC.
16 Defense counsel also indicated that she would not go to trial on this case on February 21, 2017.
17 To date, a Motion to Continue has not been filed.

18 **POINTS AND AUTHORITIES**

19 Pursuant to this court's order on September 1, 2016, the State has provided the
20 following items of discovery to defense counsel:

- 21 1. Thumbnails of Photos for event number ending in 1147 provided via email on 6/6/16
- 22 2. Thumbnails of Photos for event number ending in 1116 provided via email on 6/6/16
- 23 3. Booking Photo of Defendant provided via email on 6/10/16
- 24 4. LVMPD reports per June 2016 subpoena provided via email on 6/14/16
- 25 a. Disclosed again via email on 1/26/17; bate stamped 000157-000199
- 26 b. The following items were disclosed on 6/14/16 and 1/26/17
- 27
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- i. Marvin Bass Photo Line Up Witness Instructions/Statement; bate stamped 000157
- ii. Premier One Report event #: 160526-2109; bate stamped 000158-000160
- iii. Booking Voucher; bate stamped 000161-000162
- iv. TCR; bate stamped 000163
- v. Declaration of Arrest; bate stamped 000164
- vi. Arrest Report; bate stamped 000165-000171
- vii. Officer's Report; bate stamped 000172-000174
- viii. Show Up Witness Instructions; Santiago Garcia; bate stamped 000175
- ix. LVMPD witness list; bate stamped 000176-000180
- x. Request for Prosecution; bate stamped 000181-000182
- xi. Property Report dated 5/28/16 completed by Officer A. Ubbens; bate stamped 000183
- xii. Written Voluntary Statement by Santiago Garcia; bate stamped 000184
- xiii. Written Voluntary Statement by Jordan Alexander; bate stamped 000185
- xiv. Premier One Report event #: 160528-1133; bate stamped 000186-000187
- xv. Written Voluntary Statement; Darrell Faulkner; bate stamped 000188
- xvi. Premier One Report event #: 160528-1116; bate stamped 000189-000190
- xvii. Show Up Witness Instructions, Jordan Alexander; bate stamped 000191
- xviii. Premier One Reports event #: 160528-1129; bate stamped 000192-000193
- xix. Show Up Witness Instructions; Lazaro Bravo (Spanish); bate stamped 000194
- xx. Show Up Witness Instructions; Rosa Vasquez (Spanish); bate stamped 000195
- xxi. Written Voluntary Statement; Rosa Vasquez (Spanish); bate stamped 000196
- xxii. Written Voluntary Statement; Lazaro Bravo (Spanish); bate stamped 000197

- xxiii. Premier One event #: 160528-1147; bate stamped 000198-000199
5. CD of 911 calls (4) and photos from event numbers ending in 1147 and 1116 made available for pick-up; advised defense counsel in 6/14/16 email
 6. CAD Logs received per June 2016 subpoena provided via email on 6/14/16
 7. Marcum Notice emailed to defense counsel on 6/15/16
 8. SW for 1701 J Street, Apt. 218 provided via email on 6/22/16
 9. CD of Defendant's video-taped statement made available for pick up; advised defense counsel via email on 6/27/16
 10. Transcript of jail call made to 702-610-**** at 11:23 p.m. provided via email on 8/9/16
 - a. Disclosed again on 1/26/17 via email; bate stamped 000021-000029
 11. Transcript of jail call made to 702-610-**** at 12:14 a.m. provided via email on 8/9/16
 - a. Disclosed again on 1/26/17 via email; bate stamped 000039-000045
 12. Transcript of jail call made by Defendant at 18:16 hours provided via email on 8/9/16
 - a. Disclosed again on 1/26/17 via email; bate stamped 000046-000052
 13. Transcript of jail call made by Defendant at 12:02 a.m. provided via email on 8/9/16
 - a. Disclosed again on 1/26/17 via email; bate stamped 000053-000058
 14. Transcript of jail calls made by Defendant to 702-403-**** at 8:18 a.m. provided via email on 8/9/16
 - a. Disclosed again on 1/26/17 via email; bate stamped 000059-000065
 15. Search Warrant for Buccal Swab provided via email on 8/9/16 provided via email on 8/9/16
 16. Filed Information for Defendant's other case, C309398 in DC 9 provided via email on 8/9/16
 17. Latent Print Report for event #: 160528-1147 distribution date 8/11/16 provided via email on 8/11/16
 - a. Disclosed again via email on 1/26/17; bate stamped 000152
 18. Transcript of jail call made by Defendant at 9:55 a.m. provided via email on 8/12/16
 - a. Disclosed again on 1/26/17 via email; bate stamped 000001-000009
 19. Transcript of jail call made by Defendant at 8:27 a.m. provided via email on 8/12/16

- 1 a. Disclosed again on 1/26/17 via email; bate stamped 000010-000020
- 2 20. Transcript of jail call made by Defendant at 9:04 a.m. provided via email on 8/12/16
- 3 a. Disclosed again on 1/26/17 via email; bate stamped 000030-000038
- 4 21. LVMPD reports received per September 2016 subpoena provided via email on 8/15/16
- 5 a. Disclosed again via email on 1/26/17; bate stamped 000200-000251
- 6 b. The following items were in disclosed on 9/6/16 and 1/26/17
- 7 i. Booking Voucher; bate stamped 000200-000201
- 8 ii. TCR; bate stamped 000202
- 9 iii. Declaration of Arrest; bate stamped 000203
- 10 iv. Arrest Report; bate stamped 000204-000210
- 11 v. Marvin Bass; Photo Line Up Witness Instructions; Bate stamped 000202
- 12 vi. CSA report; event #: 160528-1116; victim Darrell Faulkner; bate
- 13 stamped 000212
- 14 vii. AFIS report distributed on 7/18/16; bate stamped 000213
- 15 viii. Written Voluntary Statement; Darrell Faulkner; bate stamped 000214
- 16 ix. Jordan Alexander; Show Up Witness Instructions; bate stamped 000215
- 17 x. Officer's Report; bate stamped 000216-000218
- 18 xi. Santiago Garcia; Show Up Witness Instructions; bate stamped 000219
- 19 xii. Property Report dated 5/28/16 completed by Officer A. Ubbens; bate
- 20 stamped 000220
- 21 xiii. Request for Prosecution; bate stamped 000221-000222
- 22 xiv. Written Voluntary Statement; Jordan Alexander; bate stamped 000223
- 23 xv. Written Voluntary Statement; Santiago Garcia; bate stamped 000224
- 24 xvi. LVMPD Witness List; bate stamped 000225-000229
- 25 xvii. CSA Report for Mazda; bate stamped 000230-000231
- 26 xviii. CSA Report for Ford F-150 bate stamped 000232
- 27 xix. CSA Evidence Impound Report; 1701 J. Street #3-218; bate stamped
- 28 000233
- xx. CSA Report – Firearm Impound; bate stamped 000234-

- xxi. Latent Print Report distribution date 7/18/16; bate stamped 000235
- xxii. Show Up Witness Instructions, Rosa Vasquez (Spanish); bate stamped 000236
- xxiii. Show up Witness Instructions; Lazaro Rosa (Spanish); bate stamped 000237
- xxiv. Property Report by Det. Majors; buccal swab; bate stamped 000238
- xxv. Written Voluntary Statement, Lazaro Bravo (Spanish); bate stamped 000239
- xxvi. Written Voluntary Statement; Rosa Vasquez (Spanish); bate stamped 000240
- xxvii. Premier One event #: 160526-2109; bate stamped 000241-000243
- xxviii. Premier One event #: 160528-1116; bate stamped 000244-000245
- xxix. Premier One event #: 160528-1129; bate stamped 000246-000247
- xxx. Premier One event #: 160528-1133; bate stamped 000248-000249
- xxxi. Premier One event #: 160528-1147; bate stamped 000250-000251
- xxxii. Rosa Vasquez; Photo Line Up Statement Translated from Spanish to English; bate stamped 000252
- xxxiii. Rosa Vasquez; Written Voluntary Statement Translated from Spanish to English; bate stamped 000253
- xxxiv. Original Photo Line Up Statements & Written Voluntary Statements for Rosa Vasquez & Lazaro Bravo; Bate Stamped 000254-000257
- xxxv. Property Report; Buccal Swab; bate stamped 000258
- xxxvi. Return SW; buccal swab; bate stamped 000259
- xxxvii. Search Warrant buccal swab; bate stamped 000260-000274
- xxxviii. Search Warrant for 1701 J Street, Apt. 218; bate stamped 000275-000280
- xxxix. Return SW 1701 J Street, Apt. 218; bate stamped 000281
- xl. Return SW Mazda and 1701 J Street; bate stamped 000282
22. DNA report provided via email on 9/20/16
- a. Disclosed again via email on 1/26/17; bate stamped 000131

- 1 23. Body Camera videos made available for pick up; advised defense counsel via email on
2 8/15/16
- 3 24. AFIS results – Latent Prints; disclosed on 1/26/17 via email; bate stamped 000066
- 4 25. CAD Logs, Unit Logs, COR Certifications per September 2016 subpoena; provided via
5 email on 1/26/17; bate stamped 000067-000090
- 6 26. CCDC Records Intel Certification provided via email on 1/26/17; bate stamped 000091
- 7 27. CCDC records per June 2016 subpoena provided via email on 1/26/17; bate stamped
8 000092-000101
- 9 28. CCDC records per September 2016 subpoena provided via email on 1/26/17; bate
10 stamped 000102-000125
- 11 29. CSA report – Firearm Impound provided via email on 1/26/17; bate stamped 000126
- 12 30. CSA report – Evidence Impound Report firearm located at 1701 J. Street #218;
13 provided via email on 1/26/17; bate stamped 000127
- 14 31. CSA report – Mazda truck provided via email on 1/26/17; bate stamped 000128-000129
- 15 32. CSA report – Ford F-150 provided via email on 1/26/17; bate stamped 000130
- 16 33. Certified Judgments of Convictions and accompanying documents provided via email
17 on 1/26/17; bate stamped 000132-000151
- 18 34. Lazaro Bravo Show Up Statement Spanish translated to English provided via email on
19 1/26/17; bate stamped 000154-000155
- 20 35. Lazaro Bravo Voluntary Statement Spanish Translated to English provided via email
21 on 1/26/17; bate stamped 000156
- 22 36. Pre-trial Services Intake Sheet; bate stamped 000283
- 23 37. Filed Information for Defendants DC 9 case, bate stamped 000284-000286
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1 38. CD of jail calls from 5-28-16 to 8-19-16 made available for pick up at DA Reception
2 on Friday, 1/27/17; total of 40 calls; defense counsel advised via email on 1/26/17

3 DATED this 8th day of February, 2017.

4 STEVEN B. WOLFSON
5 Clark County District Attorney
6 Nevada Bar #001565

7 BY /s//AGNES M. LEXIS
8 AGNES M. LEXIS
9 Chief Deputy District Attorney
10 Nevada Bar #011064

11 **CERTIFICATE OF ELECTRONIC FILING**

12 I hereby certify that service of State's Motion was made this 8th day of February, 2017,
13 by Electronic Filing to:

14 TEGAN MACHNICH, Deputy Public Defender
15 E-mail Address: tegan.machnich@ClarkCountyNV.gov

16 Shellie Warner
17 Secretary for the District Attorney's Office
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28 mmo/GCU

1 **ROC**

2 STEVEN B. WOLFSON
3 Clark County District Attorney
4 Nevada Bar #001565

5 AGNES M. LEXIS
6 Chief Deputy District Attorney
7 Nevada Bar #11064
8 200 Lewis Avenue
9 Las Vegas, Nevada 89155-2212
10 (702) 671-2500
11 Attorney for Plaintiff

FILED IN OPEN COURT
STEVEN D. GRIERSON
CLERK OF THE COURT

JUN 06 2017

BY, 

DEBORAH MILLER, DEPUTY

C-16-316081-1

ROC

Receipt of Copy

4655616



DISTRICT COURT
CLARK COUNTY, NEVADA

THE STATE OF NEVADA,

Plaintiff,

-vs-

KEANDRE VALENTINE,
#5090875

Defendant.

CASE NO: C-16-316081-1

DEPT NO: III

RECEIPT OF COPY

LIST OF DISCOVERY ITEMS PROVIDED TO DEFENSE


1. Discovery Bate Stamped 000287-000308
 - a. 000287-000292: Transcript of Taped Interview with Marvin Bass
 - b. 000293-000298: Transcript of Taped Interview with Darrell Faulkner
 - c. 000299-000302: Transcript of Taped Interview with Jordan Alexander
 - d. 000303-000308: Transcript of Taped Interview with Omara McBride
2. Body Camera Footage for LLV160528001116 (1)
3. Body Camera Footage for LLV160528001129 (6)
4. Body Camera Footage for LLV160528001133 (3)
5. Defendant's Video Taped Statement + Smart Client Player
6. Audio of Taped Statement with Marvin Bass
7. Audio of Taped Statement with Darrell Faulkner

8. Audio of Taped Statement with Jordan Alexander
9. Audio of Taped Statement with Omara McBride
10. Photo Line Up by Marvin Bass (3 pages), black and white

RECEIPT OF COPY of the above and foregoing Discovery is hereby acknowledged
this 9th day of June, 2017.

TEGAN MACHNICH, ESQ.
ATTORNEY FOR DEFENDANT

BY


309 S. THIRD STREET #226
LAS VEGAS, Nevada 89155

*Signed with understanding that I have
not personally viewed the disc + verified
the files are functional.*

GCU/AL



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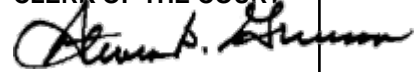
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Valentine Video Taped Statement	6/5/2017 3:26 PM	File folder
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160526-2109 Marvin Bass.WMA	6/22/2016 7:35 AM	Windows Me
160528-1116 Darrell Faulkner.WMA	6/22/2016 7:35 AM	Windows Me
160528-1129 Jordan Alexander.WMA	6/22/2016 7:35 AM	Windows Me
160528-1133 Omara McBride.WMA	6/22/2016 7:35 AM	Windows Me
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PHILIP J. KOHN, PUBLIC DEFENDER
NEVADA BAR NO. 0556
TEGAN C. MACHNICH, DEPUTY PUBLIC DEFENDER
NEVADA BAR NO. 11642
PUBLIC DEFENDERS OFFICE
309 South Third Street, Suite 226
Las Vegas, Nevada 89155
Telephone: (702) 455-4685
Facsimile: (702) 455-5112
Attorneys for Defendant

DISTRICT COURT
CLARK COUNTY, NEVADA

THE STATE OF NEVADA,)	
)	
Plaintiff,)	CASE NO. C-16-316081-1
)	
v.)	DEPT. NO. III
)	
KEANDRE VALENTINE,)	
)	
Defendant,)	
_____)	

DEFENDANT'S NOTICE OF EXPERT WITNESSES, PURSUANT TO NRS 174.234(2)

TO: CLARK COUNTY DISTRICT ATTORNEY:

You, and each of you, will please take notice that the Defendant, KEANDRE VALENTINE, intends to call the following expert witnesses in his case in chief:

Jeff Fischbach (CV attached)- 9909 Topanga Canyon, Suite 205, Chatsworth, CA 91311.
He is expected to testify regarding cell site technology including pinging, location tracking, and cell tower technology.

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1 Daniel Reisberg (CV attached) – Psychology Department, Reed College, 3203 SE
2 Woodstock, Blvd, Portland, OR 97202. He is expected to testify regarding identification
3 procedures, eyewitness identification, and factors that can affect reliability and unreliability of
4 those procedures and identifications. He will testify about mental processes that occur when
5 making identifications and biases inherent therein.

6 DATED this 30th of June, 2017.

7 PHILIP J. KOHN
8 CLARK COUNTY PUBLIC DEFENDER

9 By: /s/ Tyler Gaston
10 TYLER C. GASTON, #13488
11 Deputy Public Defender
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By: /s/Egda Ramirez
An employee of the
Clark County Public Defender's Office

An employee of the
Clark County Public Defender's Office

Jeff Michael Fischbach

ABFE/Forensic Technologist

Board Certified Forensic Examiner • Fraud Examiner • Technology Adviser • Lecturer • Trainer • Public Speaker

SecondWave, Inc.

www.SecondWave.com • 818-773-0400 x34 • Jeff@SecondWave.com
9909 Topanga Canyon, Suite 205, Chatsworth, California 91311

Abstract

Jeff Michael Fischbach is founder and President of SecondWave, Inc., a technology consulting firm specializing in information systems and technology integration. Since 1994, he has served as a technology adviser to numerous professional organizations and corporations. Mr. Fischbach has been engaged as a litigation consultant and Forensic Examiner, offering expert advice and oversight on matters involving computers, information systems, satellite cellular and other communications technologies. He has advised law enforcement, foreign government representatives, judges, lawyers and the press. In addition to his work at SecondWave, Mr. Fischbach has served on several professional boards in advisory positions.

Professional Experience

- More than 20 years of hands-on professional technology experience.
- Expert-level knowledge of Windows, MacOS, Unix and Linux, Palm and Symbian operating systems.
- Proficient and equipped to conduct Encase and FTK analysis and verified on-site forensic cloning.
- Multi-state court-qualified computer, Internet, cellular and satellite expert.
- A proven commitment to community welfare through pro-bono engagements and charitable service.
- Frequent adviser and contributor to trade press.
- Frequent lecturer and public speaker across the United States.
- Active United States Armed Forces Contractor Status
- Active United States Department of Justice Nation Security Clearance Status

Employment

SecondWave, Inc. (DBA, Secondwave Information Systems

1994-Present

Chatsworth, CA

- Litigation consulting services include fraud evaluation, forensic electronic-evidence analysis and expert testimony
- Business services include objective Internet and office technology advice, cost-analysis, ROI, as well as oversight and review of network and Internet architecture and contractors.
- Technology consulting and guidance to public and private corporation. Legal, accounting and investment firms, startups, non-profits, government agencies and law enforcement.

Prime Time Video

1986-1993

Woodland Hills, CA

- Clientele included Pacific Bell, Los Angeles Unified School District and Delson Financial, Inc.
- Multimedia development, duplication and distribution.
- Interactive media installations for conferences, presentations, and seminars

Board Positions

Viper Capital Advisors (2000-2001)

One Sansome St., Suite 2000, San Francisco, CA 94104

Edward Ehee

415-951-4794

Board of advisors: Charged with the duty of assessing the viability of nascent technologies on behalf of myriad investors.

Pulse Industries, Inc. (2000-Present)

400 S. Victory Bl. Suite 306, Burbank, CA 91502

Douglas Walker

818-238-0358

Board of advisors: Technology advisor to the president and board of directors on issues including market trends, competitive analysis, design and materials.

Memberships/Affiliations

Association for Information and Image Management Evidentiary Support Committee (AIIM.org)

1100 Wayne Avenue, Suite 1100, Silver Spring, MD 20910

301-587-8202

Working closely with the United States Department of Justice, the C22 Evidentiary Support Group of AIIM concentrates on law and information technology (IT) in relation to enterprise information management, with particular focus on information as evidence. The Evidentiary Support Group is responsible for projects related to the legal acceptance of records and documents produced by information technology systems, or related to information management and information technology as they affect the evidentiary nature of information holdings.

American College of Forensic Examiners (ACFEi.com)

2750 East Sunshine, Springfield, MO 65804

417-881-3818

The American College of Forensic Examiners International (ACFEI) is an independent, scientific and professional society. Multi-disciplinary in its scope, the society actively promotes the dissemination of forensic information. The association's purpose is the continued advancement of forensic examination and consultation across the many professional fields of its membership.

Association of Certified Fraud Examiners (CFEnet.com)

716 West Avenue, Austin, TX 78701-2727

800-245-3321

The Association of Certified Fraud Examiners, established in 1988, is based in Austin, Texas. The 28,000-member professional organization is dedicated to educating in fighting fraud. Each member of the ACFE designated a Certified Fraud Examiner (CFE) has earned certification after a rigorous qualification process.

Better Business Bureau (BBBSouthland.org)

315 North La Cadena Drive, Colton, CA 92324

909-825-7280

SecondWave Information Systems is a dedicated member of the Better Business Bureau, and proudly maintains a clear BBB Reliability Report, free of customer complaints.

Chatsworth/Porter Ranch Chamber of Commerce (ChatsworthChamber.com)

10038 Old Depot Plaza Road, Chatsworth, CA 91311

818-341-2428

SecondWave Information Systems is an active member of the Chamber of Commerce in good standing, and an active participant in activities dedicated to benefiting and enhancing the community.

California Attorneys for Criminal Justice (CACJ.org)

1225 Eighth Street, Suite 150, Sacramento, CA 95814

916-448-8868

CACJ is the country's largest statewide organization of professionals dedicated to defending the rights of persons, and preserving due process and equal protection of the law, as guaranteed United States and California laws.

Electronic Frontier Foundation (EFF.org)

454 Shotwell Street, San Francisco, CA 94110

415-436-9333

EFF is a donor-supported membership organization working to protect fundamental rights, regardless of technology; to educate the press, policymakers and the general public about civil liberties issues related to technology; and to act as a defender of those liberties.

Institute of Electrical and Electronic Engineers (IEEE.org)

3 Park Avenue, 17TH Floor, New York, New York, 10016-5997

212-419-7900

The IEEE promotes the engineering process of creating, developing, integrating, sharing, and applying knowledge about electro and information technologies and sciences for the benefit of humanity and the profession.

Information Systems Security Association (ISSA.org)

7044 S. 13th Street, Oak Creek, WI 53154

414-768-8000

The Information Systems Security Association (ISSA)® is a not-for-profit, international organization of information security professionals and practitioners. It provides educational forums, publications and peer interaction opportunities that enhance the knowledge, skill and professional growth of its members. The primary goal of the ISSA is to promote management practices that will ensure the confidentiality, integrity and availability of information resources.

National Association of Criminal Defense Lawyers (NACDL.org)

1150 18TH St. NW, Suite 950, Washington, DC 20036

202-872-8600

A professional bar association founded in 1958, the NACDL is the preeminent organization in the United States dedicated to ensuring justice and due process for persons accused of crime or other misconduct. Members include attorneys, U.S. Military counsel, law professors, and judges committed to preserving fairness within America's criminal justice system.

National Legal Aid Defender Association (NLADA.org)

1140 Connecticut Ave. NW, Suite 900, Washington, DC 20036

202-452-0620

The NLADA serves the community by providing legal aid and defender programs to low-income clients and their families and communities, and presenting a leading national voice in public policy and legislative debates on the many issues affecting the equal justice community.

VITA

Daniel Reisberg

Patricia & Clifford Lunneborg Professor of Psychology

Psychology Department, Reed College
3203 SE Woodstock Blvd.
Portland, Oregon 97202

Voice: (503) 517-7402 or (503) 770-0636
Fax: (503) 914-0477
Email: reisberg@reed.edu

Education: B.A. Swarthmore College, Psychology and Philosophy, 1975
M.A. University of Pennsylvania, Psychology, 1976
Ph.D. University of Pennsylvania, Psychology, 1980

Positions: Assistant Professor, New School for Social Research, 1980–1986.
Assistant Professor, Reed College, 1986–1989.
Associate Professor, Reed College, 1989–1993.
Visiting Scientist, Applied Psychology Unit, Medical Research Council,
Cambridge, England, 1994.
Professor, Reed College, 1993–2013.
Patricia & Clifford Lunneborg Professor of Psychology, 2013–present.
Also: Department Chair, 1995–97, 2002–04, 2006–07, 2009–2011, 2012–2014.

Honors and Awards:

High Honors, Swarthmore College, 1975
Sigma Xi (Promoted from Associate Member to Member, May 1984)
Phi Beta Kappa
National Science Foundation Graduate Fellow, 1975-78
University of Pennsylvania University Fellow, 1978
National Institute of Mental Health Predoctoral Fellow, 1978-80
Fellow of the American Association for the Advancement of Science
(elected to the rank of Fellow in October, 1994)
Fellow of the Western Psychological Association
(elected to the rank of Fellow in September, 1995)
Visiting Fellow of the British Psychological Association (September, 1999)
Fellow of the American Psychological Association, Division 3
(Experimental Psychology; elected to the rank of Fellow in August, 1999)
First-place team (with James Kalat and Nancy Felipe Russo) in
the WPA's "Psychology Jeopardy" (April, 2000)
Fellow of the Association for Psychological Science
(Elected to the rank of Fellow in January, 2007)

Publications (books marked with **b**):

1. Reisberg, D. (1972). Objections to the SST. In Siegel, K. (Ed.), *Talking back to The New York Times* (pp. 319-320). N.Y.: Quadrangle Books.
2. Schwartz, B., Reisberg, D. and Vollmecke, T. (1974). Effects of treadle training on autoshaped keypecking: Learned laziness and learned industriousness, or response competition? *Bulletin of the Psychonomic Society*, 3, 369-372.
3. Reisberg, D. (1978). Looking where you listen: Visual cues and auditory attention. *Acta Psychologica*, 42, 331-341.
4. Reisberg, D., Baron, J. and Kemler, D. (1980). Overcoming Stroop interference: The effects of practice on distractor potency. *Journal of Experimental Psychology: Human Perception and Performance*, 6, 140-150.
5. Reisberg, D., Scheiber, R. and Potemken, L. (1981). Eye position and the control of auditory attention. *Journal of Experimental Psychology: Human Perception and Performance*, 7, 318-323.
6. Reisberg, D. (1983). General mental resources and perceptual judgments. *Journal of Experimental Psychology: Human Perception and Performance*, 9, 966-979.
7. Reisberg, D., Rappaport, I. and O'Shaughnessy, M. (1984). The limits of working memory: The digit digit-span. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 10, 203-221.
8. Reisberg, D. and O'Shaughnessy, M. (1984). Diverting subjects' attention slows figural reversals. *Perception*, 13, 461-468.
9. Reisberg, D. and McLean, J. (1985). Meta-attention: Do we know when we are being distracted? *Journal of General Psychology*, 112, 291-306.
10. Chambers, D. and Reisberg, D. (1985). Can mental images be ambiguous? *Journal of Experimental Psychology: Human Perception and Performance*, 11, 317-328.
11. Reisberg, D. and Morris, A. (1985). Images contain what the imager put there: A non-replication of illusions in imagery. *Bulletin of the Psychonomic Society*, 23, 493-496.
12. Reisberg, D., Culver, C., Heuer, F. and Fischman, D. (1986). Visual memory: When imagery vividness makes a difference. *Journal of Mental Imagery*, 10, 51-74.
13. Heuer, F., Fischman, D. and Reisberg, D. (1986). Why does vivid imagery hurt colour memory? *Canadian Journal of Psychology*, 40, 161-175.

Publications (continued; *books marked with b*):

14. Reisberg, D. and Chambers, D. (1986). Neither pictures nor propositions: The intensionality of mental images. In C. Clifton (Ed.), *The Eighth Annual Conference of the Cognitive Science Society* (pp. 208-222). Hillsdale, N.J.: Erlbaum Associates.
15. Reisberg, D. and Leak, S. (1987). Visual imagery and memory for appearance: Does Clark Gable or George C. Scott have bushier eyebrows? *Canadian Journal of Psychology*, 41, 521-526.
16. Reisberg, D., McLean, J. and Goldfield, A. (1987). Easy to hear but hard to understand: A lip-reading advantage with intact auditory stimuli. In R. Campbell and B. Dodd (Eds.), *Hearing by Eye: The Psychology of Lip-Reading* (pp. 97-114). Hillsdale, N.J.: Erlbaum Associates.
17. Reisberg, D. (1987). External representations and the advantages of externalizing one's thought. In E. Hunt (Ed.), *The Ninth Annual Conference of the Cognitive Science Society* (pp. 281-293). Hillsdale, N.J.: Erlbaum Associates.
18. Reisberg, D. and Heuer, F. (1987). Commentary on "Image Psychology and the Empirical Method." *Journal of Mental Imagery*, 11, 120-129.
19. Reisberg, D., Heuer, F., McLean, J. and O'Shaughnessy, M. (1988). The quantity, not the quality, of affect predicts memory vividness. *Bulletin of the Psychonomic Society*, 26, 100-103.
20. Janata, P. and Reisberg, D. (1988). Response-time measures as a means of exploring tonal hierarchies. *Music Perception*, 6, 163-174.
21. Reisberg, D. and Heuer, F. (1988). Vividness, vagueness, and the quantification of visualizing. *Journal of Mental Imagery*, 12, 89-102.
22. Winters, L. and Reisberg, D. (1988). Mental practice or mental preparation: Why does imagined practice help? *Journal of Human Movement Studies*, 15, 279-290.
23. Reisberg, D. (1989). Review of Fred Dretske's *Explaining Behavior*. *American Scientist*, 77, 397.
24. Reisberg, D., Smith, D., Baxter, D. and Sonenshine, M. (1989). "Enacted" auditory images are ambiguous; "pure" auditory images are not. *Quarterly Journal of Experimental Psychology*, 41A, 619-641.
25. Heuer, F. and Reisberg, D. (1990). Vivid memories of emotional events: The accuracy of remembered minutiae. *Memory & Cognition*, 18, 496-506.
26. Reisberg, D. and Chambers, D. (1991). Neither pictures nor propositions: What can we learn from a mental image? *Canadian Journal of Psychology*, 45, 336-352.

Publications (continued; *books marked with b*):

27. Reisberg, D., Smith, J.D., and Wilson, M. (1991). Auditory imagery. In R. Logie and M. Denis (Eds.), *Mental images in human cognition* (pp. 59-81). Amsterdam: Elsevier.
 28. Dodson, C. and Reisberg, D. (1991). Post-event misinformation has no impact on implicit memory. *Bulletin of the Psychonomic Society*, 29, 333-336.
 - b** 29. Schwartz, B. and Reisberg, D. (1991). *Learning and Memory*. New York: Norton.
 30. Chambers, D. and Reisberg, D. (1992). What an image depicts depends on what an image means. *Cognitive Psychology*, 24, 145-174.
 31. Smith, J.D., Wilson, M. and Reisberg, D. (1992). The role of inner speech in auditory imagery. In D. Reisberg (Ed.), *Auditory imagery* (pp. 95-119). Hillsdale, N.J.: Erlbaum Associates.
 32. Burke, A., Heuer, F. and Reisberg, D. (1992). Remembering emotional events. *Memory & Cognition*, 20, 277-290.
 33. Heuer, F. and Reisberg, D. (1992). Emotion, arousal and memory for detail. In S.-Å. Christianson (Ed.), *Handbook of Emotion and Memory* (pp. 151-180). Hillsdale, N.J.: Erlbaum Associates.
 34. Reisberg, D. and Heuer, F. (1992). Flashbulbs and memory for detail from emotional events. In E. Winograd and U. Neisser (Eds.), *Affect and accuracy in recall: The problem of "flashbulb" memories* (pp. 162-190). New York: Cambridge University Press.
 - b** 35. Reisberg, D., *editor*. (1992). *Auditory Imagery*. Hillsdale, N.J.: Erlbaum Associates.
 36. Doenias, J., Langland, S. and Reisberg, D. (1992). A versatile, user-friendly tachistoscope for the Macintosh. *Behavior Research Methods, Instruments, & Computers*, 24, 434-438.
- [The software developed at Reed and described in this article was distributed nationally, and produced modest revenues for Reed. The software was listed on COMPSYCH, a national software listing for psychology software relevant to instruction or research, and was selected for the 1993 COMPSYCH Software Exposition. A demonstration version of this program was also selected by Apple Computer for inclusion on their CD-ROM demonstration package for the Humanities, Arts, and Social Sciences. The software was also selected for inclusion in the CTI Directory of Psychology Software, published by the *Computers in Teaching Initiative*, University of York.]
37. Reisberg, D. and Logie, R. (1993). The ins and outs of working memory. In M. Intons-Peterson, B. Roskos-Ewoldsen, R. Blake and K. Clayton (Eds.), *Imagery, creativity and discovery* (pp. 39-76). Hillsdale, N.J.: Erlbaum Associates.

Publications (continued; *books marked with b*):

38. Reisberg, D. (1993). The limits of mental imagery. *Computational Intelligence*, 9, 346-348.
39. Reisberg, D. (1994). "Visual imagery;" "Eyewitness testimony;" "Synesthesia;" and "Working memory." Entries in *Encyclopedia of Psychology*, 2nd Edition. N.Y.: John Wiley & Sons.
40. Reisberg, D. (1994). Equipotential recipes for unambiguous images: Comment on Rollins. *Philosophical Psychology*, 7, 359-366.
41. Reisberg, D. (1994). Review of *The Imagery Debate*, by Michael Tye. *Philosophical Psychology*, 7, 512-515.
42. Reisberg, D. (1995). Emotion's multiple effects on memory. In J. L. McGaugh, N. Weinberger, and G. Lynch (Eds.), *Brain and Memory: Modulation and mediation of neuroplasticity* (pp. 84-92). New York: Oxford University Press.
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- b 44. Cornoldi, C., Logie, R., Brandimonte, M., Kaufmann, G. and Reisberg, D., Editors. (1996). *Stretching the imagination: Representation and transformation in mental imagery*. New York: Oxford University Press.
45. Reisberg, D. (1996). The non-ambiguity of mental images. In Cornoldi, C., Logie, R., Brandimonte, M., Kaufmann, G. and Reisberg, D. (Eds.), *Stretching the imagination: Representation and transformation in mental imagery* (pp. 119-172). New York: Oxford University Press.
46. Smith, J.D., Wilson, M. and Reisberg, D. (1996). The role of subvocalization in auditory imagery. *Neuropsychologia*, 33, 1433-1454.
- b 47. Reisberg, D. (1997). *Cognition: Exploring the Science of the Mind*. New York: Norton
48. Heuer, F. and Reisberg, D. (1997). The memory effects of *thematically-induced* emotion. In Conrad, F. and Payne, D. (Eds.), *A synthesis of basic and applied approaches to human memory* (pp. 133-132). Hillsdale, NJ: Erlbaum Associates.
49. Porter, R. and Reisberg, D. (1997). Autobiography and memory. *Studies in Autobiography*, 13, 61-70.
50. Reisberg, D. (1997). "Learning." Entry in the *MIT Encyclopedia of the Cognitive Sciences*. Wilson, R. A. and Keil, F. C. (Eds.). Cambridge, MA: MIT Press.
51. Reisberg, D. (1998). Constraints on image-based discovery: A comment on Rouw et al. (1998). *Cognition*, 66, 95-102.

Publications (continued; *books marked with b*):

- b 52. Gleitman, H., Fridlund, H. and Reisberg, D. (1999). *Psychology*, 5th edition. New York: Norton.
- 53. Wilson, M., Smith, J.D., and Reisberg, D. (2000). Interplay between the inner voice and inner ear. In Behrmann, M., M. Jeannerod and S. Kosslyn (Eds.), *The neuropsychology of mental imagery*, 2nd edition.
- 54. Reisberg, D. (2000). The detachment gain: The advantage of thinking out loud. In Landau, B., Sabini, J., Newport, E., and Jonides, J. (Eds.), *Perception, Cognition and Language: Essays in honor of Henry and Lila Gleitman*. Cambridge, MA: MIT Press.
- b 55. Gleitman, H., Fridlund, H. and Reisberg, D. (2000). *Basic Psychology*, 5th edition. New York: Norton.
- b 56. Reisberg, D. (2001). *Cognition: Exploring the Science of the Mind*, 2nd edition. New York: Norton.
- 57. Reisberg, D. and Reed's Multimedia Lab (2001). In the ear of the beholder – Some tutorial demonstrations in music perception. Available on line at:
<http://academic.reed.edu/psychology/projects/music/tutorial.html>
- 58. Reisberg, D., Pearson, D., and Kosslyn, S. (2003). Intuitions and introspections about imagery: The role of *imagery experience* in shaping an investigator's theoretical views. *Applied Cognitive Psychology*, 17, 147-160.
- 59. Laney, C., Heuer, F. and Reisberg, D. (2003). Thematically-induced arousal in naturally-occurring emotional memories. *Applied Cognitive Psychology*, 17, 995-1004.
- b 60. Gleitman, H., Fridlund, H. and Reisberg, D. (2004). *Psychology*, 6th edition. New York: Norton.
- b (Also published in Portuguese: *Psicologia*, published in Lisbon by Fundacao Calouste Gulbenkian. then re-issued, in a new edition, in 2009)
- b 61. Reisberg, D. and Hertel, P., Editors (2004). *Memory and emotion*. New York: Oxford University Press. (This edited volume is part of Oxford's series in Affective Science; the series editors are Richard Davidson, Klaus Scherer, and Paul Ekman.)
- 62. Reisberg, D. and Heuer, F. (2004). Remembering emotional events. In Reisberg, D. and Hertel, P. (Eds.), *Memory and emotion* (pp. 3-41). New York: Oxford University Press.
- 63. Laney, C., Campbell, H., Heuer, F. and Reisberg, D. (2005). Memory for thematically-arousing events. *Memory & Cognition*, 32, 1149-1159.

Publications (continued; books marked with **b**):

64. Heuer, F. and Reisberg, D. (2005). Visuospatial imagery. In A. Miyake and P. Shah (Eds.), *Handbook of visuospatial thinking* (pp. 35-80). New York: Cambridge University Press.
- b** 65. Reisberg, D. (2005). *Cognition: Exploring the Science of the Mind*, 3rd edition. New York: Norton.
66. Reisberg, D. (2006) Memory for emotional episodes: The strengths and limits of arousal-based accounts. (pp. 15-36) In Uttl, B., Ohta, N. & Siegenthaler, A. (Eds.), *Memory and Emotion: Interdisciplinary Perspectives*. N.Y.: Blackwell.
67. Kosslyn, S., Reisberg, D. and Behrman, M. (2006). Introspection and mechanism in mental imagery. In Harrington, A. & Zajonc, A. (eds). *The Dalai Lama at MIT* (pp. 79-114). Cambridge, MA: Harvard University Press.
(This book reports on the 2003 two-day meeting between 13 western researchers and Tenzin Gyatso, His Holiness the Fourteenth Dalai Lama.)
- b** 68. Reisberg, D. (2007). *Cognition: Exploring the Science of the Mind*, Media edition. New York: Norton.
69. Heuer, F. and Reisberg, D. (2007). The memory effects of emotion, stress and trauma. In Ross, D., Toglia, M., Lindsay, R. and Read, D. (Eds.), *Handbook of Eyewitness Psychology: Volume 1 – Memory for Events* (pp. 81-116). Mahwah, NJ: Erlbaum Associates.
70. Reisberg, D. (2007). How big is a stimulus? Learning about imagery by studying perception. In Peterson, M., Gillam, B. and Sedgwick, H. (Eds.), *In the mind's eye: Julian Hochberg on the perception of pictures, film and the world* (pp. 467-472). New York: Oxford University Press.
- b** 71. Gleitman, H., Reisberg, D. and Gross, J. (2007). *Psychology*, 7th edition. New York: Norton.
- b** (Also published in Portuguese: *Psicologia*, published in Sao Paulo by *artmed*.)
- b** 72. Reisberg, D. (2010). *Cognition: Exploring the Science of the Mind*, 4th edition. New York: Norton.
- b** 73. Reisberg, D. (2010). *The Cognition Workbook: Essays, Demonstrations & Explorations*. New York: Norton.
- b** 74. Gleitman, H., Gross, J. & Reisberg, D. (2010). *Psychology*, 8th edition. New York: Norton.
75. Reisberg, D. (2011). Auditory Imagery. In Goldstein, B. (Ed.), *Encyclopedia of Perception*. Thousand Oaks, CA: SAGE Publications.

Publications (continued; books marked with **b**):

76. Reisberg, D., Scheiber, R. & Potemken, L. (2011). Eye position and the control of auditory attention. In Proctor, R. & Read, L. (Eds.), *Attention*. London: Sage Publications. (This is a reprint of a 1981 article, published in a volume that brings together what the editors believe to be “key articles by leading figures in the field.”)
77. Reisberg, D. (2011). Visual imagery. In Pashler, H. (Ed.), *Encyclopedia of the Mind*. Thousand Oaks, CA: SAGE Publications.
- b** 78. Reisberg, D. (2013). *Cognition: Exploring the Science of the Mind, 5th edition*. New York: Norton.
- b** 79. Reisberg, D. (2013). *The Cognition Workbook: Essays, Demonstrations & Explorations, to accompany the 5th edition*. New York: Norton.
- b** 80. Reisberg, D., Editor (2013). *The Oxford Handbook of Cognitive Psychology*. New York: Oxford University Press. (In press; this is the companion volume for Kosslyn, S. & Ochsner, K. (Eds.), *Handbook of Cognitive Neuroscience*. New York: Oxford University Press.)
As editor of this volume, I am also the author of Chapter 1 (*Introduction to the Handbook*) and Chapter 64 (*Epilogue: Looking Forward*).
[The paperback edition of this volume was released in January 2014.]
81. Reisberg, D. (2013). Visual imagery, spatial imagery. In Reisberg, D. (Ed.), *The Oxford Handbook of Cognitive Psychology*. New York: Oxford University Press.
82. Porter, D., Moss, A. & Reisberg, D. (2014). The impact of the appearance-change instruction on identification accuracy for same-race and cross-race identifications. *Applied Cognitive Psychology*, 28, 151-160.
- b** 83. Reisberg, D. (2014). *The science of perception and memory: A pragmatic guide for the justice system*. New York: Oxford University Press. [Available in print or as an eBook readable on almost any electronic device.]
- b** 84. Reisberg, D. (2015). *Cognition: Exploring the Science of the Mind, 6th edition*. New York: Norton. [Available in print or as an eBook.]
85. Reisberg, D., Simons, D., & Fournier, L., *Editors*. (2016). Are we there yet? A special forum assessing when and whether psychological research is ready for use in the justice system. *Journal of Applied Research in Memory and Cognition*, 5, 233-317.
86. Reisberg, D., Simons, D., & Fournier, L. (2016). An introduction to the JARMAC forum. *Journal of Applied Research in Memory and Cognition*, 5, 233-235.

Publications (continued; books marked with **b**):

- b** 87. Reisberg, D. (2017). *Cognition: Exploring the Science of the Mind*, 7th edition. New York: Norton. [In press.]
88. Kenchel, J., Reisberg, D. & Dodson, C. (2017). "In your own words, how certain are you?" Post-identification feedback distorts verbal expressions of confidence. [Manuscript under review.]

Papers presented at meetings:

- Reisberg, D. Preselective processing: Does an identification stage exist? Paper presented at the meetings of the Eastern Psychological Association, New York, April 1975.
- Chambers, D. and Reisberg, D. Can images have alternate interpretations? Paper presented at the meetings of the Eastern Psychological Association, Baltimore, April 1984.
- McLean, J., Goldfield, A. and Reisberg, D. Lipreading with fully audible stimuli: Speech perception is an amodal process. Paper presented at the meetings of the Eastern Psychological Association, Baltimore, April 1984.
- Reisberg, D., Heuer, F. and O'Shaughnessy, M. Predicting the vividness of autobiographical memories. Paper presented at the meetings of the Psychonomic Society, San Antonio, Texas, November 1984.
- Winters, L. and Reisberg, D. Mental practice. Paper presented at the meetings of the Eastern Psychological Association, Boston, March 1985.
(Also published as: Does imagined practice help in learning a motor skill? *Resources in Education*, Document #SP026624, 1986.)
- O'Shaughnessy, M., Winters, L. and Reisberg, D. The cognitive component of perception. Paper presented at the meetings of the Eastern Psychological Association, Boston, March 1985.
- Reisberg, D. and Chambers, D. Images, pictures and percepts. Paper presented at the meetings of the Society for Philosophy and Psychology, Toronto, May 1985.
- Reisberg, D. and Heuer, F. Imagery vividness reliably (but negatively!) predicts visual memory. Paper presented at the meetings of the Psychonomic Society, Boston, November 1985.
- Reisberg, D., Smith, J.D. and Sonenshine, M. Can subjects detect ambiguity in auditory imagery? Paper presented at the meetings of the Eastern Psychological Association, New York, April 1986.
- Chambers, D. and Reisberg, D. What governs the phenomenal appearance of mental images? Paper presented at the meetings of the Eastern Psychological Association, New York, April 1986.

Papers presented at meetings (continued):

Reisberg, D. and Chambers, D. The intensionality of mental images. Paper presented at the meetings of the Cognitive Science Society, Amherst, August 1986.

Reisberg, D., Chambers, D. and Rueger, W. Mental images as mental representations: What does an image *resemble*? Paper presented at the meetings of the Psychonomic Society, New Orleans, November 1986.

Reisberg, D. External representations and the advantages of externalizing one's thought. Paper presented at the meetings of the Cognitive Science Society, Seattle, August 1987.

Heuer, F. and Reisberg, D. Vivid memories of emotional events: The accuracy of remembered minutiae. Paper presented at the meetings of the Psychonomic Society, Seattle, November 1987.

Chambers, D. and Reisberg, D. Images are not everywhere dense: An image of a duck does not include a rabbit's nose. Paper presented at the meetings of the Eastern Psychological Association, Buffalo, N.Y., April 1988.

Baxter, D. and Reisberg, D. Auditory imagery is not ambiguous. Paper presented at the meetings of the Western Psychological Association, San Francisco, April 1988.

Wilson, M. and Reisberg, D. Two species of auditory imagery. Paper presented at the meetings of the Western Psychological Association, San Francisco, April 1988.

Reisberg, D., Smith, D. and Baxter, D. "Pure" and "enacted" auditory images. Paper presented at the meetings of the Psychonomic Society, Chicago, November 1988.

Chambers, D. and Reisberg, D. What an image includes depends on what an image means. Paper presented at the meetings of the Psychonomic Society, Chicago, November 1988.

Dodson, C. and Reisberg, D. Does post-event misleading information erase prior memories? Paper presented at the meetings of the Oregon Academy of Sciences, Portland, February 1989.

Reisberg, D. and Heuer, F. The consequences of vivid imagery: An empirical handle on the function of phenomenal states? Paper presented at the meetings of the Society for Philosophy and Psychology, Tucson, April 1989.

Reisberg, D., Lenoir, G. and Heuer, F. Anticipations and after-thoughts: How far does the "present" extend? Paper presented at the meetings of the Psychonomic Society, Atlanta, November 1989.

Reisberg, D. Do laboratory studies of imagery bear on what we call "being imaginative"? Paper presented at the meetings of the Society for Philosophy and Psychology, College Park, Maryland, June 1990.

Papers presented at meetings (continued):

- Reisberg, D. Shades of Watson: Auditory imagery and its relation to inner speech. Distinguished Guest Lecture delivered at the Workshop on Imagery and Cognition, Aberdeen Scotland, August 1990.
- Reisberg, D., Smith, J. David, and Wilson, M. Subvocalization and auditory imagery: Interactions between the “inner ear” and the “inner voice.” Paper presented at the meetings of the Psychonomic Society, New Orleans, November 1990.
- Reisberg, D. and Logie, R. The ins and outs of working memory. Paper presented at the conference on Imagery, Creativity, and Discovery, Nashville, May 1991.
- Reisberg, D. and Chambers, D. Images depict, images describe. Paper presented at the meetings of the Society for Philosophy and Psychology, San Francisco, June 1991.
- Logie, R. and Reisberg, D. The nature of rehearsal in working memory. Paper presented at the International Conference on Memory, Lancaster, England, July 1991.
- Reisberg, D. and Gossett, D. Some subjects are not influenced by how a problem is framed. Paper presented at the meetings of the Psychonomic Society, San Francisco, November 1991.
- Karbo, W. and Reisberg, D. Post-event misinformation about actions: Remembering actions that never occurred. Paper presented at the meetings of the Oregon Academy of Sciences, February 1992.
- Reisberg, D. Voices, music and hallucinations: What is auditory imagery? Invited address presented at the meetings of the Western Psychological Association, Portland, May 1992.
- Reisberg, D. Emotion and learning. Invited paper presented at the Fifth Conference on the Neurobiology of Learning and Memory, University of California, Irvine, October 1992.
- Logie, R. and Reisberg, D. Inner eyes and inner scribes: A partnership in visual working memory. Paper presented at the Fourth European Workshop in Imagery and Cognition, Tenerife, December 1992.
- Reisberg, D. What is contained within an image? Evidence from massive failures to make discoveries from imagery. Paper presented at the Seventh International Conference on Event Perception and Action, Vancouver, B.C., August 1993.
- Reisberg, D., Karbo, W., and Scully, J. The laboratory creation of false memories: How generalizable? Paper presented at the annual meetings of the Psychonomic Society, Washington D.C., November 1993.

Papers presented at meetings (continued):

- Reisberg, D. and Heuer, F. The complex interaction between memory and emotion. Paper presented at the Practical Aspects of Memory Conference, College Park, Maryland, July 1994.
- Canseco-Gonzales, E., Hutchinson, M., Reisberg, D., Robinson, S., and Vigileos, A. Arithmetic and bilingualism: Why can't I add in Spanish? Paper presented at the meetings of the Oregon Academy of Science, February 1995.
- Koch, Z. and Reisberg, D. Motoric support for visual imagery: Is imagery visual, spatial, or movement-based? Paper presented at the meetings of the Oregon Academy of Science, February 1995.
- Porter, R. and Reisberg, D. Autobiography and memory. Paper presented at the meetings of the Modern Languages Association, Chicago, December 1995.
- Reisberg, D. and Koch, Z. A role for motoric support in (so-called) visual imagery. Paper presented at the meetings of the Psychonomic Society, Los Angeles, November 1995.
- Reisberg, D. and Usui, V. The role of subvocalization in auditory imagery and working memory. Paper presented at the meetings of the Psychonomic Society, Chicago, November 1996.
- Reisberg, D. Cognition: Where is the state of the art? Invited paper presented at the meetings of the National Institute for the Teaching of Psychology, Tampa, FL, January 1997.
- Schwartzreich, E. and Reisberg, D. Individual differences in perception: The relationship between Inattentional Blindness and Spearman's *g*. Poster presented at the 4th Annual Meeting of the Cognitive Science Association for Interdisciplinary Learning, Hood River, OR, August 1997.
- Reisberg, D. What do we know about emotion's effects on memory? Paper presented at special conference, "Memory Overwhelmed: Interdisciplinary Approaches to Trauma." Atlanta, GA, October 1997.
- Reisberg, D. Mental imagery for musical timbre. Paper presented at the 5th Annual Meeting of the Cognitive Science Association for Interdisciplinary Learning, Hood River, OR, August 1998.
- Miner, N., Boelter, D., and Reisberg, D., Verbal overshadowing of face memory: When *doesn't* it occur? Paper presented at the Annual Meetings of the Society for Applied Research in Memory and Cognition (SARMAC), Boulder, CO, July 1999.

Papers presented at meetings (continued):

- Reisberg, D. Imagery: The state of the art. Keynote address presented at the meetings of the British Psychological Society, York, England, September 1999.
- Reisberg, D. Internal representations, external representations, and the intensionality of mental imagery. Invited paper presented at *Intensionality and the Natural Mind*, Washington University in St. Louis, March 19-20, 1999.
- Reisberg, D., Heuer, F., and Laney, C. Memory and emotion: Comparing memory for visually-arousing and thematically-arousing events. Paper presented at the meetings of the Psychonomic Society, New Orleans, November 2000.
- Reisberg, D. Thinking out loud: The contrasts between stimulus-based and imagery-based discovery. Keynote address presented at the meetings of the meetings of the NorthWest Cognition and Memory (NoWCaM) Society, Vancouver, B.C., May, 2001.
- Goard, M. and Reisberg, D. Retrieval-induced forgetting in the recall of complex episodes. Paper presented at the meetings of the Psychonomic Society, Orlando, FL, November 2001.
- Laney, C., Heuer, F. and Reisberg, D. Thematic-arousal, visual-arousal, and memory for emotional events. Paper presented at the meetings of the Society for Applied Research in Memory and Cognition (SARMAC), Aberdeen, Scotland, July, 2003.
- Reisberg, D. and Heuer, F. Remembering emotional events. Paper presented at the meetings of the annual Cognitive Science And Interdisciplinary Learning (CSAIL) meeting, Hood River, Oregon, July, 2003.
- Reisberg, D. Presentation as part of "*The 10th Mind and Life Conference: Exchanges between Buddhism and Biobehavioral Science with His Holiness the XIVth Dalai Lama*," Massachusetts Institute of Technology, September, 2003.
- This event featured candid discussions between the Buddhist and scientific communities about the nature of mental imagery (that is the session in which I was participating), emotion, and the nature of attention and concentration. The Dalai Lama was a central participant in all of the discussions. Recordings of this meeting are available on video, and a 2006 book provides a broad summary of our discussions.*
- Weingarten, E. and Reisberg, D. What makes a police photo line-up *suggestive*? Paper presented at the annual meetings of the Psychonomic Society, Vancouver, B.C., November, 2003.
- Reisberg, D. Memory for emotional events – The need for some distinctions. Invited Distinguished Speaker address delivered at the meetings of the Sixth Tsukuba International Conference on Memory: Memory and Emotion, Tsukuba, Japan, March 2005.

Papers presented at meetings (continued):

Reisberg, D. Remembering emotional events – Getting beyond a simple “arousal model.”
Invited address delivered at the meetings of the Western Psychological Association,
Portland, Oregon, April 2005.

Getz, S. and Reisberg, D. The effects of training on imagery skills. Paper presented at the
Mind and Life Summer Research Institute, Garrison, NY, June 2005.

Ogle, C. and Reisberg, D. A comparison of elimination, sequential and simultaneous
lineup procedures. Paper presented at the meetings of the Association for
Psychological Science, New York, NY, May 2006.

Kushlev, K. and Reisberg, D. The effects of mindfulness on the emotional experience of
choosing. Paper presented at the meetings of the Western Psychological Association,
Portland, OR, April 2009.

Houston, M. and Reisberg, D. Do jurors trust their own eyes over the expert when
presented with finger print evidence? Paper presented at the meetings of the
American Psychology-Law Society, New Orleans, LA, March 2014.

Newirth, K. et al. Out of the lab and into the courtroom: How and why eyewitness experts
are important in criminal cases. Full day workshop presented at the meetings of the
American Psychology-Law Society, Atlanta, GA. March 2016.

Kenchel, J. & Reisberg, D. Eyewitness confidence: Post-identification feedback affects
both verbal and numerical expressions. Paper presented at the meetings of the
NorthWest Cognition and Memory Association, Vancouver, BC, May 2016.

Kenchel, J., Reisberg, D., & Dodson, C.S. “In your own words, how certain are you?”
Post-identification feedback powerfully distorts verbal expressions of witness
confidence. Paper to be presented at the meetings of the American Psychology-Law
Society, Seattle, WA. March 2017.

Extramural activities / Community Service (*partial list*):

- Committee of Examiners for the Graduate Record Examination (GRE) Psychology Test, Educational Testing Service, 1992-1998.
- Director and organizer, Reed College's Second Annual Conference on Music and the Liberal Arts: *In the ear of the beholder – The psychology of music perception*. (February, 2000).
- Presentation at the Multnomah Athletic Club as part of Reed College's Luncheon Seminars: *Eyewitness Testimony and the Fallibility of Memory: Implications for the Criminal Justice System*. (March, 2000).
- Presentation for the Detective Division, Portland Bureau of Police: *Using the science of memory to improve police work*. (September, 2000).
- Presentation for the Reed College Board of Trustees: *The Fallibility of Memory*. (October, 2000).
- Presentation for the Oregon State Bar, Continuing Legal Education (CLE) Program: *The science of memory and eyewitness testimony*. (Portland, OR; October, 2000).
- Presentation for the Multnomah County District Attorney's Office, Continuing Legal Education (CLE) Program: *Expert witnesses on eyewitness memory*. (Portland, OR; January, 2001).
- Member, Advisory Board for the City of Portland's Bureau of Police Long-Term Training and Development Action Plan (2001 - 2002)
- Presentation for Reed College's 'Reed on the Road' series: *Eyewitness testimony and The Fallibility of Human Memory*. (San Francisco; March, 2002).
- Presentation for the annual meeting of the National Defender Investigator Association: *Detecting false memories*. (Portland, OR; April, 2002).
- Presentation for the Federal Public Defender's Office, Continuing Legal Education (CLE) Program: *Eyewitness identification: When is it likely to be reliable, and when not?* (Portland, OR; May, 2003).
- Presentation for Metropolitan Public Defenders, Continuing Legal Education (CLE) Program: *Evaluating eyewitness identifications*. (Portland, OR; July, 2003).
- Two-part presentation for the Oregon Criminal Defense Lawyers Association Program (CLE). *Eyewitness identifications: How accurate are they?* and *False memories: Remembering things that never happened*. (Portland, OR; December 2003).
- Presentation for Congregation Neveh Shalom. *When and how should religious beliefs evolve? Possible lessons from the Tibetan Buddhists*. (Portland, OR, February, 2004.)

Extramural activities / Community Service (*partial list; continued*):

- Presentation for the American Inn of Court. *Questioning a witness: Scientific, legal and professional issues*. (Portland, OR, March, 2004.)
- Presentation for the Oregon Society for Clinical Hypnosis. *From the laboratory to the Dalai Lama: What do know about visualization skill?* (Portland, OR: February, 2006).
- Presentation for the Oregon Criminal Defense Lawyers Association, as part of their Juvenile Law Seminar: Allegations of Sexual Abuse (CLE). (Newport, OR; April, 2006).
- Interview for *Viewpoints*, a nationally-syndicated weekly radio broadcast, highlighting current affairs, and featured on over 340 stations. *Eyewitness testimony: Can we trust it?* (March 2007; available as an mp3 download at www.mediatracks.com/vp0712 >.)
- Member, Advisory Panel for the American Psychological Association's Board of Scientific Affairs, reviewing the *National Standards for High School Psychology Curricula*, July 2007.
- Two part presentation for the King County (WA) Prosecutor's office (CLE). Scientific research on eyewitness memory: Is it probative? Is it prejudicial? Is it useful? Part 1: Identification procedures; Part 2: Eyewitness narratives & the problem of false memories. (Seattle, WA: September 2007).
- Presentation for the 12th Annual Insurance Fraud Conference, a year meeting sponsored by the insurance industry's International Association of Special Investigation Units (IASIU). Witness Interview Techniques. (Portland, OR: October 2007).
- Two part presentation for Detective Division, Portland Bureau of Police, co-presented with Sergeant Wayne Svilar. Can we use what we know about memory to improve interview procedures? and Improving identification procedures. (Portland, OR: October 2007).
[This presentation was over-subscribed in advance, and, when given, was very well received. Therefore, we offered an 'encore' performance in November 2007.]
- Presentation for fraud investigators, SAIF corporation. Interviewing witnesses: A scientific perspective. (Salem, OR: October 2008).
- Presentation for Premium Auditors Training, SAIF corporation. *Detecting lies, and getting complete information: What can a scientific perspective tell us about interviewing?* (Salem, OR: October 2008).

Extramural activities / Community Service (*partial list; continued*):

Presentation for the 29th annual meeting of the Oregon Paralegal Association. What can you learn from witnesses; what can't you learn? (Bend, OR: October 2008).

Presentation for the Oregon Criminal Defense Lawyers Association, as part of their Juvenile Law Seminar: Working with younger children (CLE). Interviewing young children: The view from the laboratory. (Newport, OR; April, 2009).

Presentation for Premium Auditors Training, SAIF corporation. *Getting the best interview you can – Worries about honesty and memory accuracy*. (Kelso, WA: April, 2009).

Presentation for "OTIS" – the "Old Timers Investigator Society" (a group of investigators working for attorneys). Evaluating Witness I.D.'s. (Portland, OR: June, 2009).

Presentation for Metropolitan Public Defenders (CLE). *Getting the best of, and the most from, witness narratives*. (Portland, OR: October 2009).

Presentation for the National Association of Paralegals. *Preparing witnesses, learning from witnesses*. (Portland, OR: October 2009).

Presentation for the Oregon Criminal Defense Lawyers Association (CLE): *Mastering & controlling the trial venue: A new perspective*. (Co-presented with Laura Graser; Portland OR: December 2010). *This presentation focused on the effects of pre-trial publicity, building on what we know about jurors' memory and judgment processes. How (and when) does pre-trial publicity influence a jury? How effective are the standard "remedies" to pre-trial publicity's impact?*

Interview on Oregon Public Radio's *Think Out Loud* program: "Changing the Child Sex-Crime Law." Broadcast March 28, 2011.

Presentation for the Oregon Criminal Defense Lawyers Association (CLE): *Using and choosing expert witnesses*. (Co-presented with Sara Snyder; Newport, OR: September 2011).

Interview on Oregon Public Radio's *Think Out Loud* program: "Memory and Eyewitness Evidence." Broadcast November 2, 2011.

Presentation for the Oregon Criminal Defense Lawyers Association (CLE): *Evaluating (and improving) eye-witness identifications*. (Portland, OR: December 2011).

Invited testimony before a joint meeting of the House and Senate Judiciary Committees: The Science of Eyewitness I.D.'s. (Salem, OR: May 2012).

Interview on KATU television news, re: "Witnesses can be wrong; task force to look at how." (Portland, OR: May 2012).

Extramural activities / Community Service (partial list; continued):

Presentation for the Oregon Criminal Defense Lawyers Association (CLE): *Oregon's new 2012 Interviewing Guidelines*. (Co-presented with Dr. Wendy Bourg and Lisa Maxfield; Newport, OR: April 2013).

Presentation for the Oregon Criminal Defense Lawyers Association (CLE): *Classen, Lawson and Eyewitness Law: The scientific evaluation of eyewitness identifications*. (Bend, OR: June 2013).

Presentation at the Center for Advanced Study in the Behavioral Sciences, Second Annual Behavioral Science Summit, on *Creativity & Innovation*. (Palo Alto, CA: July 2013).

Chair, External Evaluators Committee for the Psychology Department at Whitman College. (Walla Walla, WA: September 2013).

Presentation for Lewis & Clark Amnesty International Chapter: Wrongful Conviction: The Troy Davis Case. (Portland, OR: April 2014).

Presentation for the Oregon Criminal Defense Lawyers Association (CLE): *Oregon's New Protocol for Collecting Identification Evidence*. (Eugene, OR: January 2015; also broadcast statewide as a "webinar").

Interview on WWL radio on "The Think Tank," hosted by Garland Robinette, re: "People confess to crimes they didn't actually commit." (New Orleans, LA: February 2015).

Interview on National Public Radio on "Philosophy Talk," hosted by John Perry and Ken Taylor, re: "Your Lying Eyes: Memory, Perception, and Justice." Recorded before a live audience October 2015; broadcast November 2015 (and available online via iTunes and other podcast outlets).

Presentation for the Oregon Innocence Project (CLE): *The courts' view of psychological science: The sequential lineup as a 'case study'*. (Portland, OR: February 2016).

Two part presentation for the APA Division 42 Forensic Assessment Conference: *Perception and memory in forensic settings: Current controversies*, and also *Detecting Liars: Separating science and pseudo-science*. (Pasadena, CA: April 2016).

Extramural activities / Community Service (partial list; continued):

Presentation for the Idaho Association of Criminal Defense Lawyers: *The scientific assessment of I.D. evidence: Moving beyond Manson v. Braithwaite*. (Sun Valley, ID: March 2017).

Consultant and expert witness in judicial proceedings.

My courtroom testimony spans a range of issues, all focused on the scientific examination of how people perceive the world, remember what they have perceived, and think about what they remember. (These are central concerns in cognitive psychology.) Specific topics for testimony have included the proper procedures for eliciting children's memories; eyewitness identifications and also their narrative reports on crimes; earwitness identifications of someone's voice; memory for conversations; the evaluation of confession evidence; and jurors' memory for pretrial publicity. I have testified in civil, criminal and family courts, and also in various administrative hearings, in California, Colorado, Idaho, Montana, Oregon, and Washington, and also in federal court. I have consulted on civil, criminal, and military cases in a variety of other jurisdictions (e.g., Arizona, Michigan, New York, Nevada, Virginia, etc.)

Professional activities (*partial list*):

Service as Editor:

Applied Cognitive Psychology	(<i>Editorial board</i> , 2004-2010)
Cognitive Science	(<i>Editorial board</i> , 1990-1998)
Journal of General Psychology	(<i>Consulting editor</i> , 1984-2000)
Journal of Mental Imagery	(<i>Associate Editor</i> , 1988- 2009)
Memory & Cognition	(<i>Consulting editor</i> , 1993-1998)
Psychological Bulletin	(<i>Associate Editor</i> , 2000-2002)
Psychological Science	(<i>Editorial Board</i> , 1998- 2006)
Review of General Psychology	(<i>Editorial Board</i> , 2006-2011)

Emerging Trends in the Social & Behavioral Sciences:

Interdisciplinary Directions	(<i>Consulting editor</i> , 2012-)
Journal of Applied Research in Memory & Cognition	(<i>Associate Editor</i> , 2015-)
Philosophical Psychology	(<i>Editorial Advisory Board</i> , 1990-)
The PsychReport	(<i>Board of Scientific Advisors</i> , 2013-)

Professional activities (*partial list, continued*):

Service as Reviewer (*partial list*):

Applied Cognitive Psychology
Behavioral and Brain Sciences
Cognition & Emotion
Cognitive Psychology
Current Directions in Psychological Science
Emotion
Experimental Neurology
European Journal of Cognitive Psychology
International Journal of Psychology
Journal of Applied Developmental Psychology
Journal of Experimental Child Psychology
Journal of Experimental Psychology: General
Journal of Experimental Psychology: Human Perception & Performance
Journal of Experimental Psychology: Learning, Memory and Cognition
Journal of Memory and Language
Journal of Police and Criminal Psychology
Law and Human Behavior
Legal and Criminological Psychology
Memory
Memory & Cognition
Neurobiology of Learning & Memory
Perception & Psychophysics
Psychological Bulletin
Quarterly Journal of Experimental Psychology: Human Experimental Psychology

Member or former member:

American Psychological Association (Member, Division 3)
Elected Fellow of Division 3 in 1999
American Psychology-Law Society
Association for Psychological Science
Oregon Academy of Science
Psychonomic Society
Society for Applied Research in Memory and Cognition
Society for Philosophy and Psychology
Executive Committee, 1989-1992, 1996 - 1999
Western Psychological Association
Elected Fellow in 1995
Program Review Committee, 1999, 2000, 2003, 2004.

Addendum 1: Community Service at Reed College:

1987-8	Chair: Human Subjects Committee Member: Technological Resources Committee
1988-9	Chair: Division of Philosophy, Education, Religion and Psychology Search Committee in Psychology Technological Resources Committee Member: Administration Committee Human Subjects Committee
1989-90	Chair: Human Subjects Committee Member: Committee on Academic Policy and Planning (CAPP)* Judicial Review Committee Search Committee in Linguistics Committee on Alcohol and Drug Policy
1990-91	(On sabbatical, Fall semester) Member: Search Committee in Anthropology
1991-92	Chair: Division of Philosophy, Education, Religion and Psychology Member: Committee on Academic Policy and Planning (CAPP)* Search Committee in Psychology
1992-93	Chair: CAPP Ad Hoc Subcommittee on Cognitive Science Search Committee in Psychology Member: Committee on Advancement and Tenure (CAT)* Human Subjects Committee
1993-94	(On leave, Fall semester; Vollum Sabbatical, Spring semester)
1994-95	Member: Committee on Academic Policy and Planning (CAPP)* President's Ad Hoc Committee to Review Admissions & Recruiting Chair: Search Committee in Psychology
1995-96	Chair: Psychology Department Search Committee in Psychology Member: College Computing-Policy Committee Off-campus Study Committee

* Elected Committee.

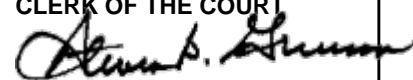
Addendum 1 (continued): Community Service at Reed College:

1996-97	Chair:	Psychology Department Search Committee in Psychology
	Member:	College Computing-Policy Committee
1997-98	Chair:	Search Committee in Psychology
	Member:	Committee on Academic Policy and Planning (CAPP)* Search Committee in Computer Science
1998-99	Chair:	Search Committee in Psychology (Developmental) Committee on Academic Policy and Planning (CAPP)* CAPP Subcommittee Investigating Class Size
	Member:	Search Committee in Computer Science
1999-2000	[Half time because of sabbatical]	
	Chair:	Search Committee in Psychology (Developmental & Clinical)
2000-01	Member:	Committee on Academic Policy and Planning (CAPP)* Search Committee in Psychology (Behavioral Neuroscience) Search Committee for Reed College President
2001-02	[Half time because of leave]	
	Member:	Search Committee for Reed College President
2002-03	Chair:	Department of Psychology Paid Leave Award Committee
	Member:	Committee on Advancement and Tenure (CAT)* [elected Faculty Secretary in the Spring term] Search Committee in Political Science Search Committee in Anthropology
2003-04	Chair:	Department of Psychology
	Member:	Committee on Academic Policy and Planning (CAPP)*
2004-05	Member:	Committee on Academic Policy and Planning (CAPP)* CAPP Subcommittee on FTE planning

* Elected Committee.

Addendum 1 (continued): Community Service at Reed College:

2005-06	[Half time because of sabbatical] Member: CAPP Subcommittee on Thesis Loads Search Committee in Psychology (Psychobiology)
2006-07	Chair: Department of Psychology Search Committee in Psychology (Clinical Psychology) Member: Search Committee in Psychology (Psychobiology) Paid Leave Awards Committee Human-Subjects Research Committee
2007-08	Chair: Search Committee in Psychology (Cognitive Psychology) Member: Paid Leave Awards Committee
2008-09	[Half time because of leave] Member: Grievance Review Panel
2009-10	Chair: Department of Psychology Ad Hoc Committee on Advising Search Committee in Psychology (Cognitive Neuroscience) Member: Physical Plant Committee
2010-11	Chair: Department of Psychology Search Committee in Psychology (Cognitive Neuroscience) Search Committee in Psychology (visiting position in Cognition) Member: Physical Plant Committee
2011-12	[Sabbatical year]
2012-13	Chair: Department of Psychology
2013-14	Chair: Department of Psychology Sabbatical Fellowship Awards Committee
2014-15	Member: Undergraduate Research Committee Physical Plant Committee
2015-16	[Half time because of leave] Member: Grievance Review Panel Safety Committee



MOT
STEVEN B. WOLFSON
Clark County District Attorney
Nevada Bar #001565
AGNES M. LEXIS
Chief Deputy District Attorney
Nevada Bar #011064
200 Lewis Avenue
Las Vegas, Nevada 89155-2212
(702) 671-2500
Attorney for Plaintiff

DISTRICT COURT
CLARK COUNTY, NEVADA

THE STATE OF NEVADA,
Plaintiff,

-vs-

KEANDRE VALENTINE,
#5090875

Defendant.

CASE NO: C-16-316081-1

DEPT NO: III

**NOTICE OF MOTION AND MOTION TO EXCLUDE EYEWITNESS EXPERT
TESTIMONY**

DATE OF HEARING: July 20, 2017
TIME OF HEARING: 9:00 A.M.

COMES NOW, the State of Nevada, by STEVEN B. WOLFSON, Clark County District Attorney, through AGNES M. LEXIS, Chief Deputy District Attorney, and files this Notice Of Motion And Motion To Exclude Eyewitness Expert Testimony.

This Motion is made and based upon all the papers and pleadings on file herein, the attached points and authorities in support hereof, and oral argument at the time of hearing, if deemed necessary by this Honorable Court.

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DATED this 7th day of July, 2017.

BY /s/ AGNES M. LEXIS
AGNES M. LEXIS
Chief Deputy District Attorney
Nevada Bar #011064

STATEMENT OF THE CASE

Dr. Reisberg "is expected to testify regarding identification procedures, eyewitness identification, and factors that can affect reliability and unreliability of those procedures and identification and about "mental processes that occur when making identification and biases inherent therein."

The State now moves this honorable court to exclude the defense's proposed expert witness, Dr. Daniel Reisberg.

When Defendant Keandre Valentine went on the robbery spree for which he is charged in this case, he was a fugitive from justice after being released on \$25,000 bail in Case No. C309398. In Case No. C309398, Defendant was then and is currently facing charges of Attempt Robbery with Use of a Deadly Weapon, Conspiracy to Commit Robbery, and Possession of Stolen Firearm. Those charges stem from a July 28, 2015 attempted robbery of

1 a woman walking in the area of Rainbow Boulevard and Washington Avenue as well as an
2 earlier residential burglary from where the firearm used in the attempt robbery was stolen.
3 Defendant had a calendar call in that case on May 12, 2016, during which defense counsel
4 represented that "Defendant is on his way from California and has car trouble." (Court
5 Minutes - 5/12/16, Case No. C309398.) At the continued calendar call on May 13, 2016,
6 defense counsel requested another continuance, representing that "Defendant Valentine was
7 in a car accident." (Court Minutes - 5/13/16, Case No. C309398.) On May 17, 2016, at the
8 further continued calendar call, defense counsel advised the court that "Defendant is having
9 issues in California," and so the court issued a no bail bench warrant. (Court Minutes -
10 5/17/16, Case No. C309398.)

11 Just days after the no bail bench warrant was ordered, on May 26, 2016, Defendant
12 robbed Martin Bass at gunpoint at the Rancho Discount Mall located at 2901 W. Washington
13 Avenue. Defendant was seen fleeing in a newer-model small white four-door car with paper
14 dealer plates. Defendant was identified as the perpetrator of the crimes against Bass by the
15 description of the suspect, suspect vehicle, modus operandi, geographic location and the
16 robbery series that followed. Bass also positively identified Defendant in a photo line-up.

17 On May 28, 2016 at approximately 6:53 a.m., Defendant robbed husband and wife
18 Darrell and Deborah Faulkner at gunpoint in the garage of their home near Vegas Drive and
19 Rancho Drive. Shortly thereafter, at approximately 7:01 a.m., Defendant robbed Jordan
20 Alexander at gunpoint in the driveway of his home located in the neighborhood directly across
21 Vegas Drive from the Faulkner residence. Jordan Alexander observed Defendant flee in an
22 unregistered white Mazda car. Within minutes, at approximately 7:08 a.m., Defendant robbed
23 Santiago Garcia at gunpoint while Garcia was working as a landscaper at a home one block
24 away from Alexander's residence. Garcia observed Defendant fleeing in an unregistered white
25 Mazda. Minutes later, less than a mile and a half away the Garcia robbery, Defendant robbed
26 Lazaro Bravo-Torres and his wife Rosa Vasquez at gunpoint outside of their home near Vegas
27 Drive and Martin Luther King Boulevard.

28 //

Shortly thereafter, less than three blocks away from the Bravo-Torres residence, police officers located an unregistered white Mazda parked at 1701 "J" Street. Officers noticed that the hood of the vehicle was still warm. Officers drove Santiago Garcia to look at the vehicle; Garcia positively identified the unregistered white Mazda as the one used by the robber. The owner of the Mazda, a female, and Defendant Valentine were found to be located in 1701 "J" Street, Building 3, Apartment 218. In an effort to conceal his identity, Defendant identified himself with the false identity of "Leonard Jones DOB 4/28/94." A subsequent search of Apartment 218 yielded a .40 Cal Glock handgun that matched the description of the one used in the series of robberies, the Nevada Identification Card and Visa debit card of victim Jordan Alexander, and the Visa debit card of victim Rosa Vasquez. Between 8:55 a.m. and 9:50 a.m., during individual show-ups with the victims, Darrell Faulkner, Alexander Jordan, Santiago Garcia, Lazaro Bravo-Torres and Rosa Vasquez all positively identified the Defendant as the person who robbed them at gunpoint.

As a result of the May 2016 events, Defendant is charged in the instant case with seven (7) counts of the non-probationable offense of Robbery With Use of a Deadly Weapon, one (1) count of Attempt Robbery With Use of a Deadly Weapon, three (3) counts Burglary While in Possession of Deadly Weapon, one (1) count of Possession Of Document or Personal Identifying Information, and two (2) counts of Possession of Credit or Debit Card Without Cardholder's Consent.

LEGAL ARGUMENT

I. CROSS-RACIAL IDENTIFICATION EXPERT TESTIMONY IS RARELY NECESSARY TO ASSIST THE JURY

Although eyewitness identification expert testimony may be allowed in some cases, it is justifiably excluded in others. Echavarria v. State, 108 Nev. 734, 746, 839 P.2d 589, 597 (1992). Many courts have recognized that “[e]xpert testimony on the psychological factors affecting eyewitness testimony is often unnecessary.” Trujillo v. Lewis, 2014 U.S. Dist. LEXIS 137867 (N.D. Cal. 2014) (*citing* People v. Lewis and Oliver, 39 Cal. 4th 970, 995 (Cal. 2006)); *see also* United States v. Holloway, 971 F.2d 675 (11th Cir.1992); Johnson v. State,

1 272 Ga. 254, 526 S.E.2d 549 (Ga. 2000); State v. McClendon, 248 Conn. 572, 585-590, 730
2 A.2d 1107, 1114-1116 (Conn. 1999); State v. Wheaton, 240 Kan. 345, 729 P.2d 1183 (1986);
3 People v. Beaver, 725 P.2d 96 (Colo. App. 1986).¹

4 This trial court has wide discretion to exclude such testimony and the decision will not
5 be overturned unless the court clearly abuses that discretion. Mulder v. State, 116 Nev. 1, 12-
6 13, 992 P.2d 901, 902 (1998). As Judge Tao recently explained, manifest abuse of discretion
7 is “one of the most deferential standards that exist in appellate law. Hubbard v. State, 2016
8 Nev. App. Unpub. LEXIS 51 (Tao, J., dissenting).

9 The following three cases are examples of trial courts in the Eighth Judicial District
10 Court agreeing and accordingly excluding eyewitness identification experts.

11 On March 13, 2008, the Honorable Judge Stewart Bell denied a defense motion seeking
12 to allow testimony of an eyewitness identification expert. The minutes of that decision reflect
13 the following: “Court advised both of the eye witness experts he has had in the past had
14 absolutely nothing to add and that was not only his view but the jurors view also . . . Court
15 advised the testimony has to at least be helpful to the jury and these witnesses do not say
16 anything that is not common sense to the jurors.” See Minutes, March 13, 2008, State of
17 Nevada v. Fredrick Martinez, 07C230889-1.

18 On May 4, 2011, the Honorable Judge Douglas Smith granted a State’s Motion to
19 Exclude Defense’s Expert Witness based on the same arguments made herein. See Minutes,
20 May 4, 2011, State of Nevada v. Rasheen Deloney, C-10-268024-2.

21 On January 11, 2006, the Honorable Judge Donald Mosley also granted a State’s
22 Motion to Exclude Defendant’s Expert Witness where the defense was attempting to use a
23 proposed identification expert. See Minutes, January 11, 2006, State of Nevada v. Jesus
24 Hernandez-Quintana, C214883.

25 ¹ See also State v. Kemp, 199 Conn. 473, 507 A.2d 1387 (1986); Taylor v. United States, 451 A.2d 859 (D.C.1982), *cert.*
26 *denied*, 461 U.S. 936, 103 S.Ct. 2105, 77 L.Ed.2d 311 (1983); Johnson v. State, 438 So.2d 774 (Fla.1983), *cert. denied*,
27 465 U.S. 1051, 104 S.Ct. 1329, 79 L.Ed.2d 724 (1984); State v. Hoisington, 104 Idaho 153, 657 P.2d 17 (1983); People
28 v. Johnson, 97 Ill.App.3d 1055, 53 Ill.Dec. 402, 423 N.E.2d 1206 (1981); State v. Goldsby, 59 Or.App. 66, 650 P.2d 952
(1982); Commonwealth v. Simmons, 541 Pa. 211, 662 A.2d 621 (1995), *cert. denied*, 516 U.S. 1128, 116 S.Ct. 945, 133
L.Ed.2d 870 (1996); State v. Wooden, 658 S.W.2d 553 (Tenn.Crim.App.1983)

1 **a. Expert Identification Testimony is Tantamount to Improper Commenting**
2 **on the Veracity of a Witness**

3 “An expert may not comment on the veracity of a witness.” Lickey v. State, 108 Nev.
4 191, 196, 827 P.2d 824 (1992). The United States Supreme Court held:

5 A fundamental premise of our criminal trial system is that “the *jury* is
6 the lie detector.” Determining the weight and credibility of witness
7 testimony, therefore, has long been held to be the “part of every case
8 [that] belongs to the jury, who are presumed to be fitted for it by their
9 natural intelligence and their practical knowledge of men and the
10 ways of men.”

11 United States v. Scheffer, 523 U.S. 303, 313, 118 S.Ct. 1261, 1266-67 (1998) (citations
12 omitted).

13 In Porter v. State, 94 Nev. 142, 147, 576 P.2d 275, 278 (1978), the Nevada Supreme
14 Court addressed the issue of eyewitness expert testimony and explained that such evidence
15 tends to “invade the province of the jury.” In Porter, the Court noted that because the
16 psychologist would testify about the unreliability of eyewitness accounts in general, there
17 existed a substantial risk that this testimony would have a greater influence on the jury than
18 the evidence presented at trial. In doing so, the Court stated:

19 On this record, there existed a substantial risk that the potential
20 persuasive appearance of [Dr.] Hess would have had a greater
21 influence on the jury than the evidence presented at trial, thereby
22 interfering with the province of the jury. United States v. Moia, 221
23 F.2d 255 (2nd Cir. 1958).

24 In United States v. Amaral, the court stated:

25 The basic purpose of any proffered evidence is to facilitate the
26 acquisition of knowledge by the triers of fact thus enabling them to
27 reach a final determination. 488 F.2d 1148, 1152 (9th Cir. 1973).
28 Here, there was no indication that the testimony would have aided
the trier of fact. See NRS 50.275.

Porter, *supra*, 94 Nev. at 148.

 Beneath the façade of “expert testimony”, the reality of eyewitness identification
testimony is that it comments on the credibility of witnesses and constitutes vouching in the
negative. It is nothing more than an expert witness getting on the stand and saying, “It is my
expert opinion that the witnesses for the State should not be believed.” If the State were to

1 present its own eyewitness identification expert to testify as to the reliability of such evidence,
2 the defense would surely jump up and call it improper witness vouching.

3 **i. Skillful Cross-examination is the Proper Tool to Attack the**
4 **Credibility of Witness Identifications**

5 As the Ninth Circuit has explained,

6 We have repeatedly affirmed district court decisions to exclude the
7 testimony of eyewitness-identification experts from federal criminal
8 trials. In reaching these decisions, we have made it clear that we
9 "adhere to the position that skillful cross examination of eyewitnesses,
10 coupled with appeals to the experience and common sense of jurors,
11 will sufficiently alert jurors to specific conditions that render a
12 particular eyewitness identification unreliable." United States v.
13 Christophe, 833 F.2d 1296, 1300 (9th Cir. 1987); *see also* United
14 States v. Labansat, 94 F.3d 527, 530 (9th Cir. 1996); United States v.
15 Langford, 802 F.2d 1176, 1179-80 (9th Cir. 1986); United States v.
16 Brewer, 783 F.2d 841, 842-43 (9th Cir. 1986); United States v.
17 Amaral, 488 F.2d 1148, 1152-54 (9th Cir. 1973)

18 Howard v. Clark, 608 F.3d 563, 574, (9th Cir. 2010).

19 In Porter v. State, 94 Nev. 142, 147, 576 P.2d 275, 278 (1978), the Nevada Supreme
20 Court also highlighted the defense's responsibility to cross-examine,

21 Further, defense counsel had the responsibility, which he ably
22 accepted, of cross-examining [the victim] to inquire into the
23 witness's opportunity and capacity for observation, his attention and
24 interest, and his capacity for retention and recollection.

25 Porter, at 148, 576 P.2d at 278.

26 **b. There is Substantial Corroborating Evidence Establishing the Defendant's**
27 **Identity, so the Probative Value of the Identification Expert's Testimony is**
28 **Outweighed by the Danger of Misleading the Jury**

Although eyewitness identification expert testimony may be allowed in some cases, it
is justifiably excluded in others. Echavarria v. State, 108 Nev. 734, 746, 839 P.2d 589, 597
(1992). The key factor in determining its admissibility is the presence (or absence) of other
evidence linking the defendant to the crime. State v. Roscoe, 184 Ariz. 484, 495 (1996) (*citing*
State v. Poland, 144 Ariz. 388, 399, (1985), *aff'd*, 476 U.S. 147, 106 S. Ct. 1749, 90 L. Ed. 2d

1 123 (1986)). The defense bar commonly cites to People v. McDonald, 37 Cal. 3d 351 (1984),
2 when arguing for a court to allow such testimony. However, in McDonald, the California
3 Supreme Court held that “[b]ecause no other evidence connected defendant with the crime,
4 the crucial factor in the case was the accuracy of the eyewitness identifications.” McDonald,
5 at 375.

6 In the instant case, there is a substantial amount of evidence linking the defendant to
7 the crime. This is not a case like McDonald where the State’s entire case rested on unreliable
8 eyewitness identifications. Here, in addition to the positive identifications by victims Marvin
9 Bass (photo line-up), Darrell Faulkner (show up), Alexander Jordan (show up), Santiago
10 Garcia (show up), Lazaro Bravo-Torres (show up) and Rosa Vasquez (show up), the
11 Defendant is linked to the crime by the following pieces of evidence: (1) Defendant’s
12 fingerprints are found on the car matching the description of the car used by the robber 2.) the
13 car was parked in front of the apartment where Defendant was apprehended 3.) the firearm
14 matching the description of the gun used by the robber was recovered in the apartment
15 Defendant was in 4.) ID cards and debit/credit cards belonging to two of the victims were also
16 found in the apartment 5.) in jail calls, Defendant admits to taking part in the robberies and
17 taking apart and hiding the firearm in the apartment. Thus, with this significant amount of
18 corroborating evidence, the probative value of the identification expert’s testimony is low and
19 can only serve to unnecessarily mislead the jury.

20 **II. IN THE ALTERNATIVE, THE STATE REQUESTS DISCLOSURE OF**
21 **LITERATURE, ARTICLES AND RESEARCH AUTHORED BY AND/OR**
22 **RELIED ON BY THE DEFENDANT’S EYEWITNESS IDENTIFICATION**
EXPERT

23 Dr. Reisberg’s resume, which is attached as Exhibit 1, lists eighty-eight (88)
24 publications and about six (6) pages of papers he has presented at meetings. Several of the
25 listings are in rectangle boxes, though it is unclear if the boxes are meant to designate relevant
26 information. However, it does not designate what articles, research, or papers, etc. he relied
27 upon when forming his expert opinions on eyewitness identification.

28 //

1 The State requests the defense to disclose the actual literature, articles and research that
2 Dr. Reisberg has conducted or authored, or will be relying on at trial.

3 **NRS 50.305 Disclosure of facts and data underlying expert**
4 **opinion.** The expert may testify in terms of opinion or inference and
5 give his or her reasons therefor without prior disclosure of the
6 underlying facts or data, unless the judge requires otherwise. The
7 expert may in any event be required to disclose the underlying facts
8 or data on cross-examination.

9 Pursuant to NRS 50.305, the State requests the court to “require otherwise” and compel
10 the defense to disclose the requested underlying facts or data so that the State can effectively
11 cross examine Dr. Reisberg. This would include all literature and articles authored by Dr.
12 Reisberg, all research conducted by Dr. Reisberg, and all literature, articles and research relied
13 on by Dr. Reisberg. Lastly, the State also requests the case numbers and jurisdiction of all
14 cases in which Dr. Reisberg has testified as an identification expert.

15 **CONCLUSION**

16 For these reasons, the State respectfully requests this honorable Court to exclude Dr.
17 Reisberg from testifying at trial and in the alternative, to compel the defense to obtain and
18 disclose all literature, articles and research authored by and/or relied on by Dr. Reisberg.

19 DATED this 7th day of July, 2017.

20 STEVEN B. WOLFSON
21 Clark County District Attorney
22 Nevada Bar #001565

23 BY /s//AGNES M. LEXIS
24 AGNES M. LEXIS
25 Chief Deputy District Attorney
26 Nevada Bar #011064
27
28

1 **CERTIFICATE OF ELECTRONIC FILING**

2 I hereby certify that service of State's Motion was made this 7th day of July, 2017, by
3 Electronic Filing to:

4 TEGAN MACHNICH, Deputy Public Defender
5 E-mail Address: tegan.machnich@ClarkCountyNV.gov

6 /s/ Laura Mullinax
7 Secretary for the District Attorney's Office

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28 AML/lm/GCU

Exhibit 1

9 January 2017

VITA

Daniel Reisberg

Patricia & Clifford Lunneborg Professor of Psychology

Psychology Department, Reed College
3203 SE Woodstock Blvd.
Portland, Oregon 97202

Voice: (503) 517-7402 or (503) 770-0636
Fax: (503) 914-0477
Email: reisberg@reed.edu

Education: B.A. Swarthmore College, Psychology and Philosophy, 1975
M.A. University of Pennsylvania, Psychology, 1976
Ph.D. University of Pennsylvania, Psychology, 1980

Positions: Assistant Professor, New School for Social Research, 1980–1986.
Assistant Professor, Reed College, 1986–1989.
Associate Professor, Reed College, 1989–1993.
Visiting Scientist, Applied Psychology Unit, Medical Research Council,
Cambridge, England, 1994.
Professor, Reed College, 1993–2013.
Patricia & Clifford Lunneborg Professor of Psychology, 2013–present.
Also: Department Chair, 1995–97, 2002–04, 2006–07, 2009–2011, 2012–2014.

Honors and Awards:

High Honors, Swarthmore College, 1975
Sigma Xi (Promoted from Associate Member to Member, May 1984)
Phi Beta Kappa
National Science Foundation Graduate Fellow, 1975–78
University of Pennsylvania University Fellow, 1978
National Institute of Mental Health Predoctoral Fellow, 1978–80
Fellow of the American Association for the Advancement of Science
(elected to the rank of Fellow in October, 1994)
Fellow of the Western Psychological Association
(elected to the rank of Fellow in September, 1995)
Visiting Fellow of the British Psychological Association (September, 1999)
Fellow of the American Psychological Association, Division 3
(Experimental Psychology; elected to the rank of Fellow in August, 1999)
First-place team (with James Kalat and Nancy Felipe Russo) in
the WPA's "Psychology Jeopardy" (April, 2000)
Fellow of the Association for Psychological Science
(Elected to the rank of Fellow in January, 2007)

For the readers' convenience, recent additions to my CV are boxed.

Publications (books marked with b):

1. Reisberg, D. (1972). Objections to the SST. In Siegel, K. (Ed.), *Talking back to The New York Times* (pp. 319-320). N.Y.: Quadrangle Books.
2. Schwartz, B., Reisberg, D. and Vollmecke, T. (1974). Effects of treadle training on autoshaped keypecking: Learned laziness and learned industriousness, or response competition? *Bulletin of the Psychonomic Society*, 3, 369-372.
3. Reisberg, D. (1978). Looking where you listen: Visual cues and auditory attention. *Acta Psychologica*, 42, 331-341.
4. Reisberg, D., Baron, J. and Kemler, D. (1980). Overcoming Stroop interference: The effects of practice on distractor potency. *Journal of Experimental Psychology: Human Perception and Performance*, 6, 140-150.
5. Reisberg, D., Scheiber, R. and Potemken, L. (1981). Eye position and the control of auditory attention. *Journal of Experimental Psychology: Human Perception and Performance*, 7, 318-323.
6. Reisberg, D. (1983). General mental resources and perceptual judgments. *Journal of Experimental Psychology: Human Perception and Performance*, 9, 966-979.
7. Reisberg, D., Rappaport, I. and O'Shaughnessy, M. (1984). The limits of working memory: The digit digit-span. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 10, 203-221.
8. Reisberg, D. and O'Shaughnessy, M. (1984). Diverting subjects' attention slows figural reversals. *Perception*, 13, 461-468.
9. Reisberg, D. and McLean, J. (1985). Meta-attention: Do we know when we are being distracted? *Journal of General Psychology*, 112, 291-306.
10. Chambers, D. and Reisberg, D. (1985). Can mental images be ambiguous? *Journal of Experimental Psychology: Human Perception and Performance*, 11, 317-328.
11. Reisberg, D. and Morris, A. (1985). Images contain what the imager put there: A non-replication of illusions in imagery. *Bulletin of the Psychonomic Society*, 23, 493-496.
12. Reisberg, D., Culver, C., Heuer, F. and Fischman, D. (1986). Visual memory: When imagery vividness makes a difference. *Journal of Mental Imagery*, 10, 51-74.
13. Heuer, F., Fischman, D. and Reisberg, D. (1986). Why does vivid imagery hurt colour memory? *Canadian Journal of Psychology*, 40, 161-175.

Publications (continued; *books marked with b*):

14. Reisberg, D. and Chambers, D. (1986). Neither pictures nor propositions: The intensionality of mental images. In C. Clifton (Ed.), *The Eighth Annual Conference of the Cognitive Science Society* (pp. 208-222). Hillsdale, N.J.: Erlbaum Associates.
15. Reisberg, D. and Leak, S. (1987). Visual imagery and memory for appearance: Does Clark Gable or George C. Scott have bushier eyebrows? *Canadian Journal of Psychology*, 41, 521-526.
16. Reisberg, D., McLean, J. and Goldfield, A. (1987). Easy to hear but hard to understand: A lip-reading advantage with intact auditory stimuli. In R. Campbell and B. Dodd (Eds.), *Hearing by Eye: The Psychology of Lip-Reading* (pp. 97-114). Hillsdale, N.J.: Erlbaum Associates.
17. Reisberg, D. (1987). External representations and the advantages of externalizing one's thought. In E. Hunt (Ed.), *The Ninth Annual Conference of the Cognitive Science Society* (pp. 281-293). Hillsdale, N.J.: Erlbaum Associates.
18. Reisberg, D. and Heuer, F. (1987). Commentary on "Image Psychology and the Empirical Method." *Journal of Mental Imagery*, 11, 120-129.
19. Reisberg, D., Heuer, F., McLean, J. and O'Shaughnessy, M. (1988). The quantity, not the quality, of affect predicts memory vividness. *Bulletin of the Psychonomic Society*, 26, 100-103.
20. Janata, P. and Reisberg, D. (1988). Response-time measures as a means of exploring tonal hierarchies. *Music Perception*, 6, 163-174.
21. Reisberg, D. and Heuer, F. (1988). Vividness, vagueness, and the quantification of visualizing. *Journal of Mental Imagery*, 12, 89-102.
22. Winters, L. and Reisberg, D. (1988). Mental practice or mental preparation: Why does imagined practice help? *Journal of Human Movement Studies*, 15, 279-290.
23. Reisberg, D. (1989). Review of Fred Dretske's *Explaining Behavior*. *American Scientist*, 77, 397.
24. Reisberg, D., Smith, D., Baxter, D. and Sonenshine, M. (1989). "Enacted" auditory images are ambiguous; "pure" auditory images are not. *Quarterly Journal of Experimental Psychology*, 41A, 619-641.
25. Heuer, F. and Reisberg, D. (1990). Vivid memories of emotional events: The accuracy of remembered minutiae. *Memory & Cognition*, 18, 496-506.
26. Reisberg, D. and Chambers, D. (1991). Neither pictures nor propositions: What can we learn from a mental image? *Canadian Journal of Psychology*, 45, 336-352.

Publications (continued; *books marked with b*):

27. Reisberg, D., Smith, J.D., and Wilson, M. (1991). Auditory imagery. In R. Logie and M. Denis (Eds.), *Mental images in human cognition* (pp. 59-81). Amsterdam: Elsevier.
28. Dodson, C. and Reisberg, D. (1991). Post-event misinformation has no impact on implicit memory. *Bulletin of the Psychonomic Society*, 29, 333-336.
- b** 29. Schwartz, B. and Reisberg, D. (1991). *Learning and Memory*. New York: Norton.
30. Chambers, D. and Reisberg, D. (1992). What an image depicts depends on what an image means. *Cognitive Psychology*, 24, 145-174.
31. Smith, J.D., Wilson, M. and Reisberg, D. (1992). The role of inner speech in auditory imagery. In D. Reisberg (Ed.), *Auditory imagery* (pp. 95-119). Hillsdale, N.J.: Erlbaum Associates.
32. Burke, A., Heuer, F. and Reisberg, D. (1992). Remembering emotional events. *Memory & Cognition*, 20, 277-290.
33. Heuer, F. and Reisberg, D. (1992). Emotion, arousal and memory for detail. In S.-Å. Christianson (Ed.), *Handbook of Emotion and Memory* (pp. 151-180). Hillsdale, N.J.: Erlbaum Associates.
34. Reisberg, D. and Heuer, F. (1992). Flashbulbs and memory for detail from emotional events. In E. Winograd and U. Neisser (Eds.), *Affect and accuracy in recall: The problem of "flashbulb" memories* (pp. 162-190). New York: Cambridge University Press.
- b** 35. Reisberg, D., *editor*. (1992). *Auditory Imagery*. Hillsdale, N.J.: Erlbaum Associates.
36. Doenias, J., Langland, S. and Reisberg, D. (1992). A versatile, user-friendly tachistoscope for the Macintosh. *Behavior Research Methods, Instruments, & Computers*, 24, 434-438.
 [The software developed at Reed and described in this article was distributed nationally, and produced modest revenues for Reed. The software was listed on COMPSYCH, a national software listing for psychology software relevant to instruction or research, and was selected for the 1993 COMPSYCH Software Exposition. A demonstration version of this program was also selected by Apple Computer for inclusion on their CD-ROM demonstration package for the Humanities, Arts, and Social Sciences. The software was also selected for inclusion in the CTI Directory of Psychology Software, published by the *Computers in Teaching Initiative*, University of York.]
37. Reisberg, D. and Logie, R. (1993). The ins and outs of working memory. In M. Intons-Peterson, B. Roskos-Ewoldsen, R. Blake and K. Clayton (Eds.), *Imagery, creativity and discovery* (pp. 39-76). Hillsdale, N.J.: Erlbaum Associates.

Publications (continued; *books marked with b*):

38. Reisberg, D. (1993). The limits of mental imagery. *Computational Intelligence*, 9, 346-348.
39. Reisberg, D. (1994). "Visual imagery;" "Eyewitness testimony;" "Synesthesia;" and "Working memory." Entries in *Encyclopedia of Psychology*, 2nd Edition. N.Y.: John Wiley & Sons.
40. Reisberg, D. (1994). Equipotential recipes for unambiguous images: Comment on Rollins. *Philosophical Psychology*, 7, 359-366.
41. Reisberg, D. (1994). Review of *The Imagery Debate*, by Michael Tye. *Philosophical Psychology*, 7, 512-515.
42. Reisberg, D. (1995). Emotion's multiple effects on memory. In J. L. McGaugh, N. Weinberger, and G. Lynch (Eds.), *Brain and Memory: Modulation and mediation of neuroplasticity* (pp. 84-92). New York: Oxford University Press.
43. Gallun, E. and Reisberg, D. (1995). On the perception of interleaved melodies. *Music Perception*, 12, 387-398.
- b** 44. Cornoldi, C., Logie, R., Brandimonte, M., Kaufmann, G. and Reisberg, D., Editors. (1996). *Stretching the imagination: Representation and transformation in mental imagery*. New York: Oxford University Press.
45. Reisberg, D. (1996). The non-ambiguity of mental images. In Cornoldi, C., Logie, R., Brandimonte, M., Kaufmann, G. and Reisberg, D. (Eds.), *Stretching the imagination: Representation and transformation in mental imagery* (pp. 119-172). New York: Oxford University Press.
46. Smith, J.D., Wilson, M. and Reisberg, D. (1996). The role of subvocalization in auditory imagery. *Neuropsychologia*, 33, 1433-1454.
- b** 47. Reisberg, D. (1997). *Cognition: Exploring the Science of the Mind*. New York: Norton
48. Heuer, F. and Reisberg, D. (1997). The memory effects of *thematically-induced* emotion. In Conrad, F. and Payne, D. (Eds.), *A synthesis of basic and applied approaches to human memory* (pp. 133-132). Hillsdale, NJ: Erlbaum Associates.
49. Porter, R. and Reisberg, D. (1997). Autobiography and memory. *Studies in Autobiography*, 13, 61-70.
50. Reisberg, D. (1997). "Learning." Entry in the *MIT Encyclopedia of the Cognitive Sciences*. Wilson, R. A. and Keil, F. C. (Eds.). Cambridge, MA: MIT Press.
51. Reisberg, D. (1998). Constraints on image-based discovery: A comment on Rouw et al. (1998). *Cognition*, 66, 95-102.

Publications (continued; *books marked with **b***):

- b** 52. Gleitman, H., Fridlund, H. and Reisberg, D. (1999). *Psychology, 5th edition*. New York: Norton.
53. Wilson, M., Smith, J.D., and Reisberg, D. (2000). Interplay between the inner voice and inner ear. In Behrmann, M., M. Jeannerod and S. Kosslyn (Eds.), *The neuropsychology of mental imagery, 2nd edition*.
54. Reisberg, D. (2000). The detachment gain: The advantage of thinking out loud. In Landau, B., Sabini, J., Newport, E., and Jonides, J. (Eds.), *Perception, Cognition and Language: Essays in honor of Henry and Lila Gleitman*. Cambridge, MA: MIT Press.
- b** 55. Gleitman, H., Fridlund, H. and Reisberg, D. (2000). *Basic Psychology, 5th edition*. New York: Norton.
- b** 56. Reisberg, D. (2001). *Cognition: Exploring the Science of the Mind, 2nd edition*. New York: Norton.
57. Reisberg, D. and Reed's Multimedia Lab (2001). In the ear of the beholder – Some tutorial demonstrations in music perception. Available on line at:
<http://academic.reed.edu/psychology/projects/music/tutorial.html>
58. Reisberg, D., Pearson, D., and Kosslyn, S. (2003). Intuitions and introspections about imagery: The role of *imagery experience* in shaping an investigator's theoretical views. *Applied Cognitive Psychology*, 17, 147-160.
59. Laney, C., Heuer, F. and Reisberg, D. (2003). Thematically-induced arousal in naturally-occurring emotional memories. *Applied Cognitive Psychology*, 17, 995-1004.
- b** 60. Gleitman, H., Fridlund, H. and Reisberg, D. (2004). *Psychology, 6th edition*. New York: Norton.
- b** (Also published in Portuguese: *Psicologia*, published in Lisbon by Fundaçao Calouste Gulbenkian. *then re-issued, in a new edition, in 2009*)
- b** 61. Reisberg, D. and Hertel, P., Editors (2004). *Memory and emotion*. New York: Oxford University Press. (This edited volume is part of Oxford's series in Affective Science; the series editors are Richard Davidson, Klaus Scherer, and Paul Ekman.)
62. Reisberg, D. and Heuer, F. (2004). Remembering emotional events. In Reisberg, D. and Hertel, P. (Eds.), *Memory and emotion* (pp. 3-41). New York: Oxford University Press.
63. Laney, C., Campbell, H., Heuer, F. and Reisberg, D. (2005). Memory for thematically-arousing events. *Memory & Cognition*, 32, 1149-1159.

Publications (continued; books marked with **b**):

64. Heuer, F. and Reisberg, D. (2005). Visuospatial imagery. In A. Miyake and P. Shah (Eds.), *Handbook of visuospatial thinking* (pp. 35-80). New York: Cambridge University Press.
- b** 65. Reisberg, D. (2005). *Cognition: Exploring the Science of the Mind*, 3rd edition. New York: Norton.
66. Reisberg, D. (2006) Memory for emotional episodes: The strengths and limits of arousal-based accounts. (pp. 15-36) In Uttl, B., Ohta, N. & Siegenthaler, A. (Eds.), *Memory and Emotion: Interdisciplinary Perspectives*. N.Y.: Blackwell.
67. Kosslyn, S., Reisberg, D. and Behrman, M. (2006). Introspection and mechanism in mental imagery. In Harrington, A. & Zajonc, A. (eds). *The Dalai Lama at MIT* (pp. 79-114). Cambridge, MA: Harvard University Press.
(This book reports on the 2003 two-day meeting between 13 western researchers and Tenzin Gyatso, His Holiness the Fourteenth Dalai Lama.)
- b** 68. Reisberg, D. (2007). *Cognition: Exploring the Science of the Mind*, Media edition. New York: Norton.
69. Heuer, F. and Reisberg, D. (2007). The memory effects of emotion, stress and trauma. In Ross, D., Toglia, M., Lindsay, R. and Read, D. (Eds.), *Handbook of Eyewitness Psychology: Volume 1 – Memory for Events* (pp. 81-116). Mahwah, NJ: Erlbaum Associates.
70. Reisberg, D. (2007). How big is a stimulus? Learning about imagery by studying perception. In Peterson, M., Gillam, B. and Sedgwick, H. (Eds.), *In the mind's eye: Julian Hochberg on the perception of pictures, film and the world* (pp. 467-472). New York: Oxford University Press.
- b** 71. Gleitman, H., Reisberg, D. and Gross, J. (2007). *Psychology*, 7th edition. New York: Norton.
- b** (Also published in Portuguese: *Psicologia*, published in Sao Paulo by artmed.)
- b** 72. Reisberg, D. (2010). *Cognition: Exploring the Science of the Mind*, 4th edition. New York: Norton.
- b** 73. Reisberg, D. (2010). *The Cognition Workbook: Essays, Demonstrations & Explorations*. New York: Norton.
- b** 74. Gleitman, H., Gross, J. & Reisberg, D. (2010). *Psychology*, 8th edition. New York: Norton.
75. Reisberg, D. (2011). Auditory Imagery. In Goldstein, B. (Ed.), *Encyclopedia of Perception*. Thousand Oaks, CA: SAGE Publications.

Publications (continued; books marked with b):

76. Reisberg, D., Scheiber, R. & Potemken, L. (2011). Eye position and the control of auditory attention. In Proctor, R. & Read, L. (Eds.), *Attention*. London: Sage Publications. (This is a reprint of a 1981 article, published in a volume that brings together what the editors believe to be "key articles by leading figures in the field.")
77. Reisberg, D. (2011). Visual imagery. In Pashler, H. (Ed.), *Encyclopedia of the Mind*. Thousand Oaks, CA: SAGE Publications.
- b 78. Reisberg, D. (2013). *Cognition: Exploring the Science of the Mind*, 5th edition. New York: Norton.
- b 79. Reisberg, D. (2013). *The Cognition Workbook: Essays, Demonstrations & Explorations, to accompany the 5th edition*. New York: Norton.
- b 80. Reisberg, D., Editor (2013). *The Oxford Handbook of Cognitive Psychology*. New York: Oxford University Press. (In press; this is the companion volume for Kosslyn, S. & Ochsner, K. (Eds.), *Handbook of Cognitive Neuroscience*. New York: Oxford University Press.)
As editor of this volume, I am also the author of Chapter 1 (*Introduction to the Handbook*) and Chapter 64 (*Epilogue: Looking Forward*).
[The paperback edition of this volume was released in January 2014.]
81. Reisberg, D. (2013). Visual imagery, spatial imagery. In Reisberg, D. (Ed.), *The Oxford Handbook of Cognitive Psychology*. New York: Oxford University Press.
82. Porter, D., Moss, A. & Reisberg, D. (2014). The impact of the appearance-change instruction on identification accuracy for same-race and cross-race identifications. *Applied Cognitive Psychology*, 28, 151-160.
- b 83. Reisberg, D. (2014). *The science of perception and memory: A pragmatic guide for the justice system*. New York: Oxford University Press. [Available in print or as an eBook readable on almost any electronic device.]
- b 84. Reisberg, D. (2015). *Cognition: Exploring the Science of the Mind*, 6th edition. New York: Norton. [Available in print or as an eBook.]
85. Reisberg, D., Simons, D., & Fournier, L., *Editors*. (2016). Are we there yet? A special forum assessing when and whether psychological research is ready for use in the justice system. *Journal of Applied Research in Memory and Cognition*, 5, 233-317.
86. Reisberg, D., Simons, D., & Fournier, L. (2016). An introduction to the JARMAC forum. *Journal of Applied Research in Memory and Cognition*, 5, 233-235.

Publications (continued; books marked with b):

- b 87. Reisberg, D. (2017). *Cognition: Exploring the Science of the Mind*, 7th edition. New York: Norton. [In press.]
88. Kenchel, J., Reisberg, D. & Dodson, C. (2017). "In your own words, how certain are you?" Post-identification feedback distorts verbal expressions of confidence. [Manuscript under review.]

Papers presented at meetings:

- Reisberg, D. Preselective processing: Does an identification stage exist? Paper presented at the meetings of the Eastern Psychological Association, New York, April 1975.
- Chambers, D. and Reisberg, D. Can images have alternate interpretations? Paper presented at the meetings of the Eastern Psychological Association, Baltimore, April 1984.
- McLean, J., Goldfield, A. and Reisberg, D. Lipreading with fully audible stimuli: Speech perception is an amodal process. Paper presented at the meetings of the Eastern Psychological Association, Baltimore, April 1984.
- Reisberg, D., Heuer, F. and O'Shaughnessy, M. Predicting the vividness of autobiographical memories. Paper presented at the meetings of the Psychonomic Society, San Antonio, Texas, November 1984.
- Winters, L. and Reisberg, D. Mental practice. Paper presented at the meetings of the Eastern Psychological Association, Boston, March 1985.
(Also published as: Does imagined practice help in learning a motor skill? *Resources in Education*, Document #SP026624, 1986.)
- O'Shaughnessy, M., Winters, L. and Reisberg, D. The cognitive component of perception. Paper presented at the meetings of the Eastern Psychological Association, Boston, March 1985.
- Reisberg, D. and Chambers, D. Images, pictures and percepts. Paper presented at the meetings of the Society for Philosophy and Psychology, Toronto, May 1985.
- Reisberg, D. and Heuer, F. Imagery vividness reliably (but negatively!) predicts visual memory. Paper presented at the meetings of the Psychonomic Society, Boston, November 1985.
- Reisberg, D., Smith, J.D. and Sonenshine, M. Can subjects detect ambiguity in auditory imagery? Paper presented at the meetings of the Eastern Psychological Association, New York, April 1986.
- Chambers, D. and Reisberg, D. What governs the phenomenal appearance of mental images? Paper presented at the meetings of the Eastern Psychological Association, New York, April 1986.

Papers presented at meetings (continued):

- Reisberg, D. and Chambers, D. The intensionality of mental images. Paper presented at the meetings of the Cognitive Science Society, Amherst, August 1986.
- Reisberg, D., Chambers, D. and Rueger, W. Mental images as mental representations: What does an image *resemble*? Paper presented at the meetings of the Psychonomic Society, New Orleans, November 1986.
- Reisberg, D. External representations and the advantages of externalizing one's thought. Paper presented at the meetings of the Cognitive Science Society, Seattle, August 1987.
- Heuer, F. and Reisberg, D. Vivid memories of emotional events: The accuracy of remembered minutiae. Paper presented at the meetings of the Psychonomic Society, Seattle, November 1987.
- Chambers, D. and Reisberg, D. Images are not everywhere dense: An image of a duck does not include a rabbit's nose. Paper presented at the meetings of the Eastern Psychological Association, Buffalo, N.Y., April 1988.
- Baxter, D. and Reisberg, D. Auditory imagery is not ambiguous. Paper presented at the meetings of the Western Psychological Association, San Francisco, April 1988.
- Wilson, M. and Reisberg, D. Two species of auditory imagery. Paper presented at the meetings of the Western Psychological Association, San Francisco, April 1988.
- Reisberg, D., Smith, D. and Baxter, D. "Pure" and "enacted" auditory images. Paper presented at the meetings of the Psychonomic Society, Chicago, November 1988.
- Chambers, D. and Reisberg, D. What an image includes depends on what an image means. Paper presented at the meetings of the Psychonomic Society, Chicago, November 1988.
- Dodson, C. and Reisberg, D. Does post-event misleading information erase prior memories? Paper presented at the meetings of the Oregon Academy of Sciences, Portland, February 1989.
- Reisberg, D. and Heuer, F. The consequences of vivid imagery: An empirical handle on the function of phenomenal states? Paper presented at the meetings of the Society for Philosophy and Psychology, Tucson, April 1989.
- Reisberg, D., Lenoir, G. and Heuer, F. Anticipations and after-thoughts: How far does the "present" extend? Paper presented at the meetings of the Psychonomic Society, Atlanta, November 1989.
- Reisberg, D. Do laboratory studies of imagery bear on what we call "being imaginative"? Paper presented at the meetings of the Society for Philosophy and Psychology, College Park, Maryland, June 1990.

Papers presented at meetings (continued):

- Reisberg, D. Shades of Watson: Auditory imagery and its relation to inner speech. Distinguished Guest Lecture delivered at the Workshop on Imagery and Cognition, Aberdeen Scotland, August 1990.
- Reisberg, D., Smith, J. David, and Wilson, M. Subvocalization and auditory imagery: Interactions between the "inner ear" and the "inner voice." Paper presented at the meetings of the Psychonomic Society, New Orleans, November 1990.
- Reisberg, D. and Logie, R. The ins and outs of working memory. Paper presented at the conference on Imagery, Creativity, and Discovery, Nashville, May 1991.
- Reisberg, D. and Chambers, D. Images depict, images describe. Paper presented at the meetings of the Society for Philosophy and Psychology, San Francisco, June 1991.
- Logie, R. and Reisberg, D. The nature of rehearsal in working memory. Paper presented at the International Conference on Memory, Lancaster, England, July 1991.
- Reisberg, D. and Gossett, D. Some subjects are not influenced by how a problem is framed. Paper presented at the meetings of the Psychonomic Society, San Francisco, November 1991.
- Karbo, W. and Reisberg, D. Post-event misinformation about actions: Remembering actions that never occurred. Paper presented at the meetings of the Oregon Academy of Sciences, February 1992.
- Reisberg, D. Voices, music and hallucinations: What is auditory imagery? Invited address presented at the meetings of the Western Psychological Association, Portland, May 1992.
- Reisberg, D. Emotion and learning. Invited paper presented at the Fifth Conference on the Neurobiology of Learning and Memory, University of California, Irvine, October 1992.
- Logie, R. and Reisberg, D. Inner eyes and inner scribes: A partnership in visual working memory. Paper presented at the Fourth European Workshop in Imagery and Cognition, Tenerife, December 1992.
- Reisberg, D. What is contained within an image? Evidence from massive failures to make discoveries from imagery. Paper presented at the Seventh International Conference on Event Perception and Action, Vancouver, B.C., August 1993.
- Reisberg, D., Karbo, W., and Scully, J. The laboratory creation of false memories: How generalizable? Paper presented at the annual meetings of the Psychonomic Society, Washington D.C., November 1993.

Papers presented at meetings (continued):

Reisberg, D. and Heuer, F. The complex interaction between memory and emotion. Paper presented at the Practical Aspects of Memory Conference, College Park, Maryland, July 1994.

Canseco-Gonzales, E., Hutchinson, M., Reisberg, D., Robinson, S., and Vigileos, A. Arithmetic and bilingualism: Why can't I add in Spanish? Paper presented at the meetings of the Oregon Academy of Science, February 1995.

Koch, Z. and Reisberg, D. Motoric support for visual imagery: Is imagery visual, spatial, or movement-based? Paper presented at the meetings of the Oregon Academy of Science, February 1995.

Porter, R. and Reisberg, D. Autobiography and memory. Paper presented at the meetings of the Modern Languages Association, Chicago, December 1995.

Reisberg, D. and Koch, Z. A role for motoric support in (so-called) visual imagery. Paper presented at the meetings of the Psychonomic Society, Los Angeles, November 1995.

Reisberg, D. and Usui, V. The role of subvocalization in auditory imagery and working memory. Paper presented at the meetings of the Psychonomic Society, Chicago, November 1996.

Reisberg, D. Cognition: Where is the state of the art? Invited paper presented at the meetings of the National Institute for the Teaching of Psychology, Tampa, FL, January 1997.

Schwartzreich, E. and Reisberg, D. Individual differences in perception: The relationship between Inattentional Blindness and Spearman's *g*. Poster presented at the 4th Annual Meeting of the Cognitive Science Association for Interdisciplinary Learning, Hood River, OR, August 1997.

Reisberg, D. What do we know about emotion's effects on memory? Paper presented at special conference, "Memory Overwhelmed: Interdisciplinary Approaches to Trauma." Atlanta, GA, October 1997.

Reisberg, D. Mental imagery for musical timbre. Paper presented at the 5th Annual Meeting of the Cognitive Science Association for Interdisciplinary Learning, Hood River, OR, August 1998.

Miner, N., Boelter, D., and Reisberg, D., Verbal overshadowing of face memory: When *doesn't* it occur? Paper presented at the Annual Meetings of the Society for Applied Research in Memory and Cognition (SARMAC), Boulder, CO, July 1999.

Papers presented at meetings (continued):

- Reisberg, D. Imagery: The state of the art. Keynote address presented at the meetings of the British Psychological Society, York, England, September 1999.
- Reisberg, D. Internal representations, external representations, and the intensionality of mental imagery. Invited paper presented at *Intensionality and the Natural Mind*, Washington University in St. Louis, March 19-20, 1999.
- Reisberg, D., Heuer, F., and Laney, C. Memory and emotion: Comparing memory for visually-arousing and thematically-arousing events. Paper presented at the meetings of the Psychonomic Society, New Orleans, November 2000.
- Reisberg, D. Thinking out loud: The contrasts between stimulus-based and imagery-based discovery. Keynote address presented at the meetings of the meetings of the NorthWest Cognition and Memory (NoWCaM) Society, Vancouver, B.C., May, 2001.
- Goard, M. and Reisberg, D. Retrieval-induced forgetting in the recall of complex episodes. Paper presented at the meetings of the Psychonomic Society, Orlando, FL, November 2001.
- Laney, C., Heuer, F. and Reisberg, D. Thematic-arousal, visual-arousal, and memory for emotional events. Paper presented at the meetings of the Society for Applied Research in Memory and Cognition (SARMAC), Aberdeen, Scotland, July, 2003.
- Reisberg, D. and Heuer, F. Remembering emotional events. Paper presented at the meetings of the annual Cognitive Science And Interdisciplinary Learning (CSAIL) meeting, Hood River, Oregon, July, 2003.
- Reisberg, D. Presentation as part of "*The 10th Mind and Life Conference: Exchanges between Buddhism and Biobehavioral Science with His Holiness the XIVth Dalai Lama*," Massachusetts Institute of Technology, September, 2003.
- This event featured candid discussions between the Buddhist and scientific communities about the nature of mental imagery (that is the session in which I was participating), emotion, and the nature of attention and concentration. The Dalai Lama was a central participant in all of the discussions. Recordings of this meeting are available on video, and a 2006 book provides a broad summary of our discussions.*
- Weingarten, E. and Reisberg, D. What makes a police photo line-up suggestive? Paper presented at the annual meetings of the Psychonomic Society, Vancouver, B.C., November, 2003.
- Reisberg, D. Memory for emotional events – The need for some distinctions. Invited Distinguished Speaker address delivered at the meetings of the Sixth Tsukuba International Conference on Memory: Memory and Emotion, Tsukuba, Japan, March 2005.

Papers presented at meetings (continued):

Reisberg, D. Remembering emotional events – Getting beyond a simple “arousal model.”
Invited address delivered at the meetings of the Western Psychological Association,
Portland, Oregon, April 2005.

Getz, S. and Reisberg, D. The effects of training on imagery skills. Paper presented at the
Mind and Life Summer Research Institute, Garrison, NY, June 2005.

Ogle, C. and Reisberg, D. A comparison of elimination, sequential and simultaneous
lineup procedures. Paper presented at the meetings of the Association for
Psychological Science, New York, NY, May 2006.

Kushlev, K. and Reisberg, D. The effects of mindfulness on the emotional experience of
choosing. Paper presented at the meetings of the Western Psychological Association,
Portland, OR, April 2009.

Houston, M. and Reisberg, D. Do jurors trust their own eyes over the expert when
presented with finger print evidence? Paper presented at the meetings of the
American Psychology-Law Society, New Orleans, LA, March 2014.

Newirth, K. et al. Out of the lab and into the courtroom: How and why eyewitness experts
are important in criminal cases. Full day workshop presented at the meetings of the
American Psychology-Law Society, Atlanta, GA. March 2016.

Kenchel, J. & Reisberg, D. Eyewitness confidence: Post-identification feedback affects
both verbal and numerical expressions. Paper presented at the meetings of the
NorthWest Cognition and Memory Association, Vancouver, BC, May 2016.

Kenchel, J., Reisberg, D., & Dodson, C.S. “In your own words, how certain are you?”
Post-identification feedback powerfully distorts verbal expressions of witness
confidence. Paper to be presented at the meetings of the American Psychology-Law
Society, Seattle, WA. March 2017.

Extramural activities / Community Service (partial list):

- Committee of Examiners for the Graduate Record Examination (GRE) Psychology Test, Educational Testing Service, 1992-1998.
- Director and organizer, Reed College's Second Annual Conference on Music and the Liberal Arts: *In the ear of the beholder – The psychology of music perception*. (February, 2000).
- Presentation at the Multnomah Athletic Club as part of Reed College's Luncheon Seminars: *Eyewitness Testimony and the Fallibility of Memory: Implications for the Criminal Justice System*. (March, 2000).
- Presentation for the Detective Division, Portland Bureau of Police: *Using the science of memory to improve police work*. (September, 2000).
- Presentation for the Reed College Board of Trustees: *The Fallibility of Memory*. (October, 2000).
- Presentation for the Oregon State Bar, Continuing Legal Education (CLE) Program: *The science of memory and eyewitness testimony*. (Portland, OR; October, 2000).
- Presentation for the Multnomah County District Attorney's Office, Continuing Legal Education (CLE) Program: *Expert witnesses on eyewitness memory*. (Portland, OR; January, 2001).
- Member, Advisory Board for the City of Portland's Bureau of Police Long-Term Training and Development Action Plan (2001 - 2002)
- Presentation for Reed College's 'Reed on the Road' series: *Eyewitness testimony and The Fallibility of Human Memory*. (San Francisco; March, 2002).
- Presentation for the annual meeting of the National Defender Investigator Association: *Detecting false memories*. (Portland, OR; April, 2002).
- Presentation for the Federal Public Defender's Office, Continuing Legal Education (CLE) Program: *Eyewitness identification: When is it likely to be reliable, and when not?* (Portland, OR; May, 2003).
- Presentation for Metropolitan Public Defenders, Continuing Legal Education (CLE) Program: *Evaluating eyewitness identifications*. (Portland, OR; July, 2003).
- Two-part presentation for the Oregon Criminal Defense Lawyers Association Program (CLE). *Eyewitness identifications: How accurate are they?* and *False memories: Remembering things that never happened*. (Portland, OR; December 2003).
- Presentation for Congregation Neveh Shalom. *When and how should religious beliefs evolve? Possible lessons from the Tibetan Buddhists*. (Portland, OR, February, 2004.)

Extramural activities / Community Service (partial list; continued):

Presentation for the American Inn of Court. *Questioning a witness: Scientific, legal and professional issues*. (Portland, OR, March, 2004.)

Presentation for the Oregon Society for Clinical Hypnosis. *From the laboratory to the Dalai Lama: What do know about visualization skill?* (Portland, OR: February, 2006).

Presentation for the Oregon Criminal Defense Lawyers Association, as part of their Juvenile Law Seminar: Allegations of Sexual Abuse (CLE). (Newport, OR; April, 2006).

Interview for *Viewpoints*, a nationally-syndicated weekly radio broadcast, highlighting current affairs, and featured on over 340 stations. *Eyewitness testimony: Can we trust it?* (March 2007; available as an mp3 download at < www.mediatracks.com/vp0712 >.)

Member, Advisory Panel for the American Psychological Association's Board of Scientific Affairs, reviewing the *National Standards for High School Psychology Curricula*, July 2007.

Two part presentation for the King County (WA) Prosecutor's office (CLE). Scientific research on eyewitness memory: Is it probative? Is it prejudicial? Is it useful? Part 1: Identification procedures; Part 2: Eyewitness narratives & the problem of false memories. (Seattle, WA: September 2007).

Presentation for the 12th Annual Insurance Fraud Conference, a year meeting sponsored by the insurance industry's International Association of Special Investigation Units (IASIU). Witness Interview Techniques. (Portland, OR: October 2007).

Two part presentation for Detective Division, Portland Bureau of Police, co-presented with Sergeant Wayne Svilar. Can we use what we know about memory to improve interview procedures? and Improving identification procedures. (Portland, OR: October 2007).

[This presentation was over-subscribed in advance, and, when given, was very well received. Therefore, we offered an 'encore' performance in November 2007.]

Presentation for fraud investigators, SAIF corporation. Interviewing witnesses: A scientific perspective. (Salem, OR: October 2008).

Presentation for Premium Auditors Training, SAIF corporation. *Detecting lies, and getting complete information: What can a scientific perspective tell us about interviewing?* (Salem, OR: October 2008).

Extramural activities / Community Service (partial list; continued):

- Presentation for the 29th annual meeting of the Oregon Paralegal Association. What can you learn from witnesses; what can't you learn? (Bend, OR: October 2008).
- Presentation for the Oregon Criminal Defense Lawyers Association, as part of their Juvenile Law Seminar: Working with younger children (CLE). Interviewing young children: The view from the laboratory. (Newport, OR; April, 2009).
- Presentation for Premium Auditors Training, SAIF corporation. *Getting the best interview you can – Worries about honesty and memory accuracy.* (Kelso, WA: April, 2009).
- Presentation for "OTIS" – the "Old Timers Investigator Society" (a group of investigators working for attorneys). Evaluating Witness I.D.'s. (Portland, OR: June, 2009).
- Presentation for Metropolitan Public Defenders (CLE). *Getting the best of, and the most from, witness narratives.* (Portland, OR: October 2009).
- Presentation for the National Association of Paralegals. *Preparing witnesses, learning from witnesses.* (Portland, OR: October 2009).
- Presentation for the Oregon Criminal Defense Lawyers Association (CLE): *Mastering & controlling the trial venue: A new perspective.* (Co-presented with Laura Graser; Portland OR: December 2010). *This presentation focused on the effects of pre-trial publicity, building on what we know about jurors' memory and judgment processes. How (and when) does pre-trial publicity influence a jury? How effective are the standard "remedies" to pre-trial publicity's impact?*
- Interview on Oregon Public Radio's *Think Out Loud* program: "Changing the Child Sex-Crime Law." Broadcast March 28, 2011.
- Presentation for the Oregon Criminal Defense Lawyers Association (CLE): *Using and choosing expert witnesses.* (Co-presented with Sara Snyder; Newport, OR: September 2011).
- Interview on Oregon Public Radio's *Think Out Loud* program: "Memory and Eyewitness Evidence." Broadcast November 2, 2011.
- Presentation for the Oregon Criminal Defense Lawyers Association (CLE): *Evaluating (and improving) eye-witness identifications.* (Portland, OR: December 2011).
- Invited testimony before a joint meeting of the House and Senate Judiciary Committees: The Science of Eyewitness I.D.'s. (Salem, OR: May 2012).
- Interview on KATU television news, re: "Witnesses can be wrong; task force to look at how." (Portland, OR: May 2012).

Extramural activities / Community Service (partial list; continued):

Presentation for the Oregon Criminal Defense Lawyers Association (CLE): *Oregon's new 2012 Interviewing Guidelines*. (Co-presented with Dr. Wendy Bourg and Lisa Maxfield; Newport, OR: April 2013).

Presentation for the Oregon Criminal Defense Lawyers Association (CLE): *Classen, Lawson and Eyewitness Law: The scientific evaluation of eyewitness identifications*. (Bend, OR: June 2013).

Presentation at the Center for Advanced Study in the Behavioral Sciences, Second Annual Behavioral Science Summit, on *Creativity & Innovation*. (Palo Alto, CA: July 2013).

Chair, External Evaluators Committee for the Psychology Department at Whitman College. (Walla Walla, WA: September 2013).

Presentation for Lewis & Clark Amnesty International Chapter: Wrongful Conviction: The Troy Davis Case. (Portland, OR: April 2014).

Presentation for the Oregon Criminal Defense Lawyers Association (CLE): *Oregon's New Protocol for Collecting Identification Evidence*. (Eugene, OR: January 2015; also broadcast statewide as a "webinar").

Interview on WWL radio on "The Think Tank," hosted by Garland Robinette, re: "People confess to crimes they didn't actually commit." (New Orleans, LA: February 2015).

Interview on National Public Radio on "Philosophy Talk," hosted by John Perry and Ken Taylor, re: "Your Lying Eyes: Memory, Perception, and Justice." Recorded before a live audience October 2015; broadcast November 2015 (and available online via iTunes and other podcast outlets).

Presentation for the Oregon Innocence Project (CLE): *The courts' view of psychological science: The sequential lineup as a 'case study'*. (Portland, OR: February 2016).

Two part presentation for the APA Division 42 Forensic Assessment Conference: *Perception and memory in forensic settings: Current controversies*, and also *Detecting Liars: Separating science and pseudo-science*. (Pasadena, CA: April 2016).

Extramural activities / Community Service (partial list; continued):

Presentation for the Idaho Association of Criminal Defense Lawyers: *The scientific assessment of I.D. evidence: Moving beyond Manson v. Braithwaite*. (Sun Valley, ID: March 2017).

Consultant and expert witness in judicial proceedings.

My courtroom testimony spans a range of issues, all focused on the scientific examination of how people perceive the world, remember what they have perceived, and think about what they remember. (These are central concerns in cognitive psychology.) Specific topics for testimony have included the proper procedures for eliciting children's memories; eyewitness identifications and also their narrative reports on crimes; earwitness identifications of someone's voice; memory for conversations; the evaluation of confession evidence; and *jurors'* memory for pretrial publicity. I have testified in civil, criminal and family courts, and also in various administrative hearings, in California, Colorado, Idaho, Montana, Oregon, and Washington, and also in federal court. I have consulted on civil, criminal, and military cases in a variety of other jurisdictions (e.g., Arizona, Michigan, New York, Nevada, Virginia, etc.)

Professional activities (partial list):

Service as Editor:

Applied Cognitive Psychology	(<i>Editorial board</i> , 2004-2010)
Cognitive Science	(<i>Editorial board</i> , 1990-1998)
Journal of General Psychology	(<i>Consulting editor</i> , 1984-2000)
Journal of Mental Imagery	(<i>Associate Editor</i> , 1988- 2009)
Memory & Cognition	(<i>Consulting editor</i> , 1993-1998)
Psychological Bulletin	(<i>Associate Editor</i> , 2000-2002)
Psychological Science	(<i>Editorial Board</i> , 1998- 2006)
Review of General Psychology	(<i>Editorial Board</i> , 2006-2011)

Emerging Trends in the Social & Behavioral Sciences:

Interdisciplinary Directions	(<i>Consulting editor</i> , 2012-)
Journal of Applied Research in Memory & Cognition	(<i>Associate Editor</i> , 2015-)
Philosophical Psychology	(<i>Editorial Advisory Board</i> , 1990-)
The PsychReport	(<i>Board of Scientific Advisors</i> , 2013-)

Professional activities (*partial list, continued*):

Service as Reviewer (*partial list*):

Applied Cognitive Psychology
Behavioral and Brain Sciences
Cognition & Emotion
Cognitive Psychology
Current Directions in Psychological Science
Emotion
Experimental Neurology
European Journal of Cognitive Psychology
International Journal of Psychology
Journal of Applied Developmental Psychology
Journal of Experimental Child Psychology
Journal of Experimental Psychology: General
Journal of Experimental Psychology: Human Perception & Performance
Journal of Experimental Psychology: Learning, Memory and Cognition
Journal of Memory and Language
Journal of Police and Criminal Psychology
Law and Human Behavior
Legal and Criminological Psychology
Memory
Memory & Cognition
Neurobiology of Learning & Memory
Perception & Psychophysics
Psychological Bulletin
Quarterly Journal of Experimental Psychology: Human Experimental Psychology

Member or former member:

American Psychological Association (Member, Division 3)
Elected Fellow of Division 3 in 1999
American Psychology-Law Society
Association for Psychological Science
Oregon Academy of Science
Psychonomic Society
Society for Applied Research in Memory and Cognition
Society for Philosophy and Psychology
Executive Committee, 1989-1992, 1996 - 1999
Western Psychological Association
Elected Fellow in 1995
Program Review Committee, 1999, 2000, 2003, 2004.

Addendum 1: Community Service at Reed College:

1987-8	Chair:	Human Subjects Committee
	Member:	Technological Resources Committee
1988-9	Chair:	Division of Philosophy, Education, Religion and Psychology Search Committee in Psychology Technological Resources Committee
	Member:	Administration Committee Human Subjects Committee
1989-90	Chair:	Human Subjects Committee
	Member:	Committee on Academic Policy and Planning (CAPP)* Judicial Review Committee Search Committee in Linguistics Committee on Alcohol and Drug Policy
1990-91		(On sabbatical, Fall semester)
	Member:	Search Committee in Anthropology
1991-92	Chair:	Division of Philosophy, Education, Religion and Psychology
	Member:	Committee on Academic Policy and Planning (CAPP)* Search Committee in Psychology
1992-93	Chair:	CAPP Ad Hoc Subcommittee on Cognitive Science Search Committee in Psychology
	Member:	Committee on Advancement and Tenure (CAT)* Human Subjects Committee
1993-94		(On leave, Fall semester; Vollum Sabbatical, Spring semester)
1994-95	Member:	Committee on Academic Policy and Planning (CAPP)* President's Ad Hoc Committee to Review Admissions & Recruiting
	Chair:	Search Committee in Psychology
1995-96	Chair:	Psychology Department Search Committee in Psychology
	Member:	College Computing-Policy Committee Off-campus Study Committee

* Elected Committee.

Addendum 1 (continued): Community Service at Reed College:

1996-97	Chair:	Psychology Department Search Committee in Psychology
	Member:	College Computing-Policy Committee
1997-98	Chair:	Search Committee in Psychology
	Member:	Committee on Academic Policy and Planning (CAPP)* Search Committee in Computer Science
1998-99	Chair:	Search Committee in Psychology (Developmental) Committee on Academic Policy and Planning (CAPP)* CAPP Subcommittee Investigating Class Size
	Member:	Search Committee in Computer Science
1999-2000	[Half time because of sabbatical]	
	Chair:	Search Committee in Psychology (Developmental & Clinical)
2000-01	Member:	Committee on Academic Policy and Planning (CAPP)* Search Committee in Psychology (Behavioral Neuroscience) Search Committee for Reed College President
2001-02	[Half time because of leave]	
	Member:	Search Committee for Reed College President
2002-03	Chair:	Department of Psychology Paid Leave Award Committee
	Member:	Committee on Advancement and Tenure (CAT)* [elected Faculty Secretary in the Spring term] Search Committee in Political Science Search Committee in Anthropology
2003-04	Chair:	Department of Psychology
	Member:	Committee on Academic Policy and Planning (CAPP)*
2004-05	Member:	Committee on Academic Policy and Planning (CAPP)* CAPP Subcommittee on FTE planning

* Elected Committee.

Addendum 1 (continued): Community Service at Reed College:

2005-06	[Half time because of sabbatical] Member: CAPP Subcommittee on Thesis Loads Search Committee in Psychology (Psychobiology)
2006-07	Chair: Department of Psychology Search Committee in Psychology (Clinical Psychology) Member: Search Committee in Psychology (Psychobiology) Paid Leave Awards Committee Human-Subjects Research Committee
2007-08	Chair: Search Committee in Psychology (Cognitive Psychology) Member: Paid Leave Awards Committee
2008-09	[Half time because of leave] Member: Grievance Review Panel
2009-10	Chair: Department of Psychology Ad Hoc Committee on Advising Search Committee in Psychology (Cognitive Neuroscience) Member: Physical Plant Committee
2010-11	Chair: Department of Psychology Search Committee in Psychology (Cognitive Neuroscience) Search Committee in Psychology (visiting position in Cognition) Member: Physical Plant Committee
2011-12	[Sabbatical year]
2012-13	Chair: Department of Psychology
2013-14	Chair: Department of Psychology Sabbatical Fellowship Awards Committee
2014-15	Member: Undergraduate Research Committee Physical Plant Committee
2015-16	[Half time because of leave] Member: Grievance Review Panel Safety Committee

Exhibit 2

CASE No. 07C230889-2

The State of Nevada vs Fredrick Martinez

Case Type:	Felony/Gross Misdemeanor
Date Filed:	02/28/2007
Location:	Department 20
Cross-Reference Case Number:	C230889
Defendant's Scope ID #:	1878108
Lower Court Case Number:	06GJ00124
Supreme Court No.:	69082
	68194
	71733

RELATED CASE INFORMATION

Related Cases

07C230889-1 (Multi-Defendant Case)

PARTY INFORMATION

Defendant Martinez, Fredrick

Lead Attorneys
Dan M. Winder
Retained
702-878-6000/000

Plaintiff **State of Nevada**

Steven B Wolfson
702-671-2700(W)

CHARGE INFORMATION

Charges: Martinez, Fredrick

1. MURDER.
1. DEGREES OF MURDER
1. USE OF A DEADLY WEAPON OR TEAR GAS IN COMMISSION OF A CRIME.
2. BURGLARY.
3. ATTEMPT.
3. ROBBERY
3. USE OF A DEADLY WEAPON OR TEAR GAS IN COMMISSION OF A CRIME.
4. CONSPIRACY TO COMMIT A CRIME
4. ROBBERY

Statute	Level	Date
200.010	Felony	01/01/1900
200.030	Felony	01/01/1900
193.165	Felony	01/01/1900
205.060	Felony	01/01/1900
193.330	Felony	01/01/1900
200.380	Felony	01/01/1900
193.165	Felony	01/01/1900
199.480	Felony	01/01/1900
200.380	Felony	01/01/1900

EVENTS & ORDERS OF THE COURT

03/13/2008 | All Pending Motions (8:30 AM) ()

ALL PENDING MOTIONS 3-13-08 Court Clerk: Tina Hurd Reporter/Recorder: Renee Vincent Heard By: Stewart Bell

Minutes

03/13/2008 8:30 AM

1/31/2008 8:30 AM

CALENDAR CALL...Counsel announced ready for trial. COURT ORDERED, this case will proceed to trial on Monday. Stipulation and Waiver of Penalty Hearing, as to each DEF., FILED IN OPEN COURT. Court advised he read the motions. DEFT. MARTINEZ'S MOTION TO ALLOW TESTIMONY OF EXPERT WITNESS...Court advised both of the eye witness experts he has had in the past had absolutely nothing to add and that was not only his view but the jurors view also. COURT ORDERED, motion DENIED. Mr. Stanton stated he believes it is incompetent evidence as it invades the province of the jury. Court advised the testimony has to at least be helpful to the jury and these witnesses do not say anything that is not common sense to the jurors. DEFT. MARTINEZ'S MOTION TO EXCLUDE EVIDENCE OF PRIOR/OTHER BAD ACTS AND PRIOR CRIMINAL ACTIVITY...DEFT. ESCAMILLA'S JOINDER TO MOTION IN LIMINE TO EXCLUDE EVIDENCE OF PRIOR/OTHER BAD ACTS & PRIOR CRIMINAL ACTIVITY...Court advised any bad acts, whether charged or not, would not come in unless the State files a Petocelli motion which they have not. COURT ORDERED, motion GRANTED. DEFT MARTINEZ'S MOTION IN LIMINE TO PRECLUDE THE USE OF THE PROPOSED REDACTED STATEMENTS OF THE DEFT. AND, IN THE ALTERNATIVE, RENEWED MOTION FOR SEVERANCE... DEFT. ESCAMILLA'S JOINDER TO MOTION IN LIMINE TO PRECLUDE THE USE OF THE PROPOSED REDACTED STATEMENTS OF THE DEFT. AND, IN THE ALTERNATIVE, RENEWED MOTION FOR SEVERANCE...Court inquired how Deft. Martinez has any stand to say his own statement cannot come in. Mr. Winder argued the entire statement has to come in. Court advised it does not and he has already ruled the statement is too complicated to redact. Mr. Winder argued it is prejudicial unless it is absolutely clear what he is talking about and argued the redacted statement is not accurate. The questions the State wants to ask do not follow the transcript and, if they do not use the co-DEF.'s name, it appears Deft. Martinez is admitting to the Murder which he has not. Court advised Mr. Winder can cross-examine Deft. Martinez on this but he cannot use Deft. Escamilla's name. Mr. Winder stated he does not see how it can be done without severing the trials. COURT ORDERED, motion DENIED, however, he will go back and review the questions and let counsel know Monday if he believes any are unfairly phrased. Colloquy regarding questions. Further arguments by counsel. Court stated he believes the last question on page one kind of puts someone at the store making the call and COURT ORDERED, that question is DELETED. Court advised he will review the remaining questions. Mr. Winder stated he wants to file a document under seal. Court advised he will review that document tomorrow and let counsel know Monday. COURT FURTHER ORDERED, motion to sever is DENIED. Mr. Winder requested a witness from the jail be allowed to appear in street clothing. Court advised only the Defts. have that right and ORDERED, request DENIED. Mr. Winder advised he has another witness he might want to call out of order. Mr. Stanton advised it is an alibi witness that was not noticed and he would want the alibi witnesses to testify at the same time. Mr. Winder advised she has a planned vacation with her family. Court advised he would grant the same courtesy to the State and directed counsel to let him know on Monday and he will work it out. Mr. Winder advised there are phone records he would like to admit during the time period in question. The problem is, in order to do that, he would have to bring in the Custodian of Records. Court advised they can do an affidavit. Mr. Winder advised he will try to do a stipulation with the State later today, however, if they cannot agree, he would like to be on tomorrow for the Court to rule. Mr. Stanton advised the sticking point of the stipulation is the cell subscriber is different than the person Mr. Winder wants to say was using the phone. COURT ORDERED, matter CONTINUED to tomorrow to resolve that issue. CUSTODY (BOTH) 3-14-08 9:00 AM STATUS CHECK; PHONE RECORDS

Parties Present

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Location : District Courts [Images](#) [Help](#)

REGISTER OF ACTIONS

CASE NO. C-10-268024-2

State of Nevada vs Rasheen Deloney

§
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Case Type: **Felony/Gross Misdemeanor**
Date Filed: **10/04/2010**
Location: **Department 8**
Cross-Reference Case Number: **C268024**
Defendant's Scope ID #: **1951306**
ITAG Booking Number: **1000044544**
ITAG Case ID: **1179239**
Lower Court Case # Root: **10F15615**
Lower Court Case Number: **10F15615B**

RELATED CASE INFORMATION

Related Cases

C-10-268024-1 (Multi-Defendant Case)

PARTY INFORMATION

Defendant Deloney, Rasheen

Lead Attorneys
Susan K. Bush
Retained
702-455-6266(W)

Plaintiff State of Nevada

Steven B Wolfson
702-671-2700(W)

CHARGE INFORMATION

Charges: Deloney, Rasheen	Statute	Level	Date
1. CONSP ROBBERY	200.380	Felony	08/08/2010
1. ROBBERY	200.380	Felony	08/08/2010
3. CONSP ROBBERY	200.380	Felony	08/08/2010
4. BURGLARY WHILE IN POSSESSION OF DEADLY WEAPON	205.060	Felony	08/08/2010
5. ROBBERY WITH A DEADLY WEAPON	200.380	Felony	08/08/2010
6. ROBBERY WITH A DEADLY WEAPON	200.380	Felony	08/08/2010

EVENTS & ORDERS OF THE COURT

04/27/2011 Motion to Exclude (8:00 AM) (Judicial Officer Adair, Valerie)
04/27/2011, 05/04/2011
STATE'S MOTION TO EXCLUDE DEFENSE'S "EXPERT" WITNESS

Minutes

04/27/2011 8:00 AM

05/04/2011 8:00 AM

- State advised it had nothing further to add in this matter. Argument by counsel regarding identification expert witnesses are allowed to testify in Nevada and it should not be a judgment call by the State. Court stated its findings and ORDERED, motion GRANTED. CUSTODY

[Parties Present](#)

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REGISTER OF ACTIONS

CASE No. 05C214883

The State of Nevada vs Jesus E Hernandez-Quintana

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Case Type: **Felony/Gross Misdemeanor**
Date Filed: **09/07/2005**
Location: **Department 25**
Cross-Reference Case Number: **C214883**
Defendant's Scope ID #: **1967615**
Lower Court Case # Root: **05F14443**
Lower Court Case Number: **05F14443X**

RELATED CASE INFORMATION

Related Cases

05F14443X (Bind Over Related Case)

PARTY INFORMATION

Defendant Hernandez-Quintana, Jesus E

Lead Attorneys
Public Defender
Retained
702-455-4685(W)

Plaintiff State of Nevada

Steven B Wolfson
702-671-2700(W)

CHARGE INFORMATION

Charges: Hernandez-Quintana, Jesus E	Statute	Level	Date
1. CONSPIRACY TO COMMIT A CRIME	199.480	Felony	01/01/1900
1. ROBBERY	200.380	Felony	01/01/1900
2. KIDNAP WITH USE OF A DEADLY WEAPON	200.310	Felony	01/01/1900
2. USE OF A DEADLY WEAPON OR TEAR GAS IN COMMISSION OF A CRIME.	193.165	Felony	01/01/1900
3. ROBBERY	200.380	Felony	01/01/1900
3. USE OF A DEADLY WEAPON OR TEAR GAS IN COMMISSION OF A CRIME.	193.165	Felony	01/01/1900
4. GRAND LARCENY AUTOMOBILE	205.228	Felony	01/01/1900

EVENTS & ORDERS OF THE COURT

01/11/2006 All Pending Motions (9:00 AM) ()
ALL PENDING MOTIONS 1/11/06 Court Clerk: Linda Skinner Reporter/Recorder: Maureen Schorn Court Interpreter: MANUEL CALVILLO Heard By: Donald Mosley

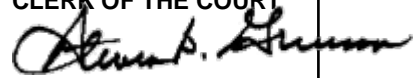
Minutes

01/11/2006 9:00 AM

- CONFIRMATION OF COUNSEL...SCHEDULE STATE'S MOTION TO EXCLUDE DEFENDANT'S EXPERT WITNESS AS TO COUNSEL: Upon Court's inquiry, Defendant's family stated they will be hiring an attorney. Court noted the Public Defender's Office will REMAIN as counsel at this time; if the family hires private counsel, they will be allowed to substitute in ONLY if the trial date is not frustrated. AS TO MOTION: Arguments by Mr. Bateman and Ms. Luem. Following arguments, Court stated the expert will not be allowed to testify and ORDERED, State's Motion GRANTED. CUSTODY

[Parties Present](#)

[Return to Register of Actions](#)



PHILIP J. KOHN, PUBLIC DEFENDER
NEVADA BAR NO. 0556
TEGAN MACHNICH, DEPUTY PUBLIC DEFENDER
NEVADA BAR NO. 11642
PUBLIC DEFENDERS OFFICE
309 South Third Street, Suite 226
Las Vegas, Nevada 89155
Telephone: (702) 455-3601
Facsimile: (702) 455-5112
Tegan.Machnich@clarkcountynv.gov
Attorneys for Defendant

DISTRICT COURT
CLARK COUNTY, NEVADA

THE STATE OF NEVADA,)	
)	
Plaintiff,)	CASE NO. C-16-316081-1
)	
v.)	DEPT. NO. III
)	
KEANDRE VALENTINE,)	
)	
Defendant,)	
_____)	

**OPPOSITION TO STATE'S MOTION TO EXCLUDE EYE-WITNESS EXPERT
TESTIMONY**

COMES NOW, the Defendant, KEANDRE VALENTINE, by and through TEGAN MACHNICH, Deputy Public Defender, and hereby moves this Honorable Court to deny the State's Motion to Exclude Eye-Witness Expert Testimony.

This Motion is made and based upon all the papers and pleadings on file herein, the attached Declaration of Counsel, and oral argument at the time set for hearing this Motion.

DATED this 19th day of July, 2017.

PHILIP J. KOHN
CLARK COUNTY PUBLIC DEFENDER

By: /s/ Tegan Machnich
TEGAN MACHNICH
Deputy Public Defender

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TEGAN C. MACHNICH makes the following declaration:

1. I am an attorney duly licensed to practice law in the State of Nevada.
2. I am a Deputy Public Defender for the Clark County Public Defender's Office.
3. I am appointed to represent the Defendant, KEANDRE VALENTINE, in the instant matter.
4. I make this Declaration in support of Defendant's Opposition to State's Motion to Exclude Eye-Witness Expert Testimony.
5. I am more than eighteen (18) years of age, and I am competent to testify as to the matters stated herein.
6. I am familiar with the facts, circumstances, and procedural history of this case.
7. I am familiar with the substantive allegations made by the State of Nevada against Defendant, KEANDRE VALENTINE.
8. I have personal knowledge pertaining to the facts stated herein, or I have been informed of these facts and believe them to be true.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief. NRS 53.045.

EXECUTED this 19th day of July, 2017.

/s/ Tegan Machnich
TEGAN MACHNICH

1 **MEMORANDUM OF POINTS AND AUTHORITIES**

2
3 **I. RELEVANT FACTUAL BACKGROUND**

4 Defendant Valentine has two pending cases – the first, mentioned in the State’s Motion,
5 is inadmissible in the instant case and not at issue here (any mention thereof meant only to taint
6 this Court’s unbiased consideration of the law at issue). This case involves a series of robberies
7 that allegedly took place during May 26 – 28, 2016.

8 In its motion, the State generally includes a recitation of facts they believe to be true. As
9 stated therein, this case involves one photographic lineup (May 26, 2016 alleged victim Bass)
10 and five show-up identifications (all named May 28, 2016 alleged victims). The Defense intends
11 to present an alibi witness for at least one of the alleged robberies and will be contesting the eye-
12 witness identification by all alleged victims.
13

14 The State includes other anticipated evidence in its motion. Defendant Valentine does have a
15 theory of defense to rebut the other evidence listed by the State, and is happy to do so outside the
16 presence of the District Attorneys assigned to this matter. If the Court is considering striking the
17 identification expert in this case, Defendant Valentine requests the opportunity to present his
18 theory to this Honorable Court outside the presence of the State before an ultimate decision is
19 made.
20

21 **II. EXPERT EYEWITNESS IDENTIFICATION TESTIMONY IS A COMMON SCIENTIFIC AREA**
22 **OF EXPERTISE IN THE EIGHTH JUDICIAL DISTRICT COURT**

23 Defendant Valentine’s eye-witness identification expert is anticipated to testify about an
24 area of scientific research far beyond just “cross-racial identification.” The implementation of
25 eyewitness identification procedures is uncontroversial across a spectrum of professional
26 disciplines and agencies, including prosecutors and law enforcement. However, the science that
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precipitated ubiquitous use of eyewitness identification procedures involves extensive, specialized knowledge of the human brain and memory; more specifically, the way the human brain acquires, perceives, interprets, organizes, processes, and stores information.

Understanding the science that induced law enforcement agencies and courts—federal and state—to view eyewitness identifications with skepticism, and as to adopt protective procedural measures *requires* expert scientific testimony. To that end, the Defense has noticed expert witnesses whose expertise, generally, is the scientific assessment of memory.

The State presents three examples of cases where judges have declined to allow eyewitness identification experts testify.¹ None of the factual scenarios are present in the State’s motion. Thus, while the defense is not certain of the factual scenarios surrounding those cases, this Court should note that the most recent cited is from Judge Smith in 2011.

The Eighth Judicial District Court has, on numerous occasions, allowed eyewitness identification expert witness testimony. Specifically, the Honorable Judge Adair admitted the testimony in 2007 (*State v. Jesus Meraz*, C216763 – transcript attached hereto as Exhibit A); the Honorable Judge Togliatti in 2016 (*State v. Raul Torres* – minutes attached hereto as Exhibit B); and this Honorable Court in 2016 (*State v. Emone James* – transcript attached hereto as Exhibit C). Noticeably, eyewitness identification testimony has become more common in recent years.

III. UNDER THE PROPER ANALYSIS, EYEWITNESS IDENTIFICATION EXPERT TESTIMONY IS ADMISSIBLE AND PROPER

An expert is competent to testify when the expert is: (1) qualified in an area of scientific, technical or other specialized knowledge (qualification requirement); (2) the knowledge assists the trier of fact in understanding the evidence or determining a fact in issue (assistance

¹ Note: the Hubbard decision cited on page 5 does not involve excluding an eyewitness identification expert – it merely addresses the legal standard as applied to the Court admitting evidence of prior bad acts. Also, along with its unpublished status, the cited “decision” is actually a dissent. See *Hubbard v. State*, 2016 WL 1394350, *11.

1 requirement); and (3) the testimony elicited is limited to matters within the scope of the expert's
2 knowledge (limited scope requirement). NRS 50.275; *Hallmark v. Eldridge*, 189 P.3d 646, 650
3 (2008). The trial court, in the exercise of its sound discretion, determines whether an expert meets
4 the *Hallmark* requirements for admissibility. *Higgs v. State*, 222 P.3d 648, 658-59 (2010).
5 However, the Nevada Supreme Court in *Higgs* fervently rejected the notion that the requirements
6 outlined in NRS 50.275 were exhaustive. *Id.* at 658. Instead, the statute is a general guide to be
7 applied according to the particularities of individual. Specifically, the Court noted that the
8 qualification, assistance and limited scope requirements may not apply in each instance or
9 uniformly across cases. *Id.* at 659. NRS 50.275 "ensure[s] reliability and relevance, while not
10 imposing upon a judge a mandate to determine scientific falsifiability and error rate for each
11 case." *Id.* at 659.

12
13 The Nevada Supreme Court has considered NRS 50.275 in cases involving eyewitness
14 identification testimony to determine whether an expert's testimony is admissible at trial.
15 Specifically, in *Echavarria v. State*, eyewitness identification experts were evaluated under the
16 following criteria: An eyewitness identification expert must be (1) a qualified expert who testifies
17 to (2) a proper subject in (3) conformity to a generally accepted explanatory theory under
18 circumstances in which the testimony's (4) probative value outweighs its prejudicial effect. 108
19 Nev. 734, 746 (1992) (citing *United States v. Amaral*, 488 F.2d 1148, 1153 (9th Cir. 1973)).
20
21

22 While evaluation of expert testimony admissibility pursuant to the *Echavarria* factors is
23 required to determine admissibility, the Nevada Supreme Court has cautioned trial courts not to
24 ignore the reliability of an identification witness. 108 Nev. at 746. When specifically addressing
25 the admissibility of expert eyewitness identification testimony, the Court in *Echavarria* found
26 problems with the eyewitness identification evidence that, in the Court's mind, raised
27 considerable doubt as to the identification's reliability. *Id.* at 746-47. In light of this considerable
28

1 doubt and unreliability, the Court deemed said expert testimony both relevant and helpful to the
2 jury. *Id.* (finding that the trial court erred in denying admission of expert eyewitness identification
3 testimony).

4 ***A. Echavarria Factors***

5 **a. Qualified Expert**

6 The *Echavarria* court requires the expert witness to possess the qualifications and
7 education concomitant to his/her expert designation. 108 Nev. at 746. All noticed experts (of
8 which the defense intends to call only one), are properly qualified experts in the field of
9 experimental psychology.
10

11 Dr. Reisberg has earned bachelors, masters and doctoral degrees in psychology, and
12 specializes in the scientific assessment of memory. Dr. Reisberg is a published author in the field
13 of experimental psychology—specifically, inter alia, the science of memory—and has served as
14 an editor for peer reviewed scientific journals. Dr. Reisberg currently serves as a Patricia &
15 Clifford Lunneborg Professor of Psychology at Reed College in Portland, Oregon. With regard to
16 memory and eyewitness identification in particular, Dr. Reisberg’s work has been published, on
17 dozens of occasions, in books and peer-reviewed, scientific journals. Additionally, Dr. Reisberg
18 has testified over 150 times over the last fifteen (15) to twenty (20) years. All of his trial
19 testimony has been in the area of scientific assessment of memory, and most of that testimony
20 was heard in the context of criminal trials. Dr. Loftus, Dr. Smith, Dr. Davis and Dr. Copeland
21 similarly hold bachelors, masters and doctoral degrees in psychology. They have likewise
22 authored innumerable studies and books and are highly honored/awarded scholars.
23

24 All noticed eye-witness experts possesses stellar qualifications in their field, in keeping
25 with NRS 50.275 as interpreted by *Hallmark*, 189 P.3d 646 (2008), and *Echevarria*, 108 Nev. 734
26 (1992). Furthermore, their testimony will assist the trier in fact in understanding the science—
27
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1 science relating to the human brain and memory—underlying the urgent need for promulgation,
2 implementation, and adherence to procedural protections in the context of eyewitness
3 identifications. All CVs were previously submitted to this Court and the State.

4 **b. Proper Subject**

5 Eye-witness identification testimony is a proper subject for testimony at trial in the
6 instant matter. Expert testimony involves specialized knowledge that *will assist the trier in fact*
7 *to understand the evidence* or determine a fact in issue. NRS 50.275 (emphasis added).
8 Scientific testimony pertaining to the chemistry and psychology of the human brain far exceeds
9 the experience and common sense knowledge of a lay juror. In addition to the likely naiveté of
10 lay jurors in re the intricacies of human brain science, the specialized, scientific information to
11 which the noticed experts would testify far exceeds the scope of a lay witness's knowledge and
12 experience. This, of course, means that the Defense, at trial, cannot elicit, through cross-
13 examination, information to which any of the noticed experts would testify from the
14 eyewitnesses in this case.

17 There is no doubt that the eyewitness identifications in this case are integral to the State's
18 prosecution. There is also no doubt that the Defendant is entitled to a competent, vigorous
19 Defense; but this this is especially true where, as here, the State has filed a notice of intent to
20 seek habitual offender treatment in the event of conviction. This makes a conviction in this case
21 punishable by up to life in prison. The noticed experts will educate the jury with regard to the
22 human brain, memory, and the application of his specialized knowledge to the facts in this case.
24 The testifying expert will not draw an ultimate opinion on the reliability of the eyewitness
25 identification in this case—that is for the jury to decide. Instead, he/she will provide a scientific
26 framework within which the jurors may consider the eyewitness identifications in this case.

1 The testifying expert will neither usurp the function of the jury, nor unduly influence their
2 determination of eyewitness identification reliability. The jury will generally understand, through
3 common sense and experience, the factual context in which the eyewitness identifications in this
4 case occurred. However, the testifying expert's testimony will focus on how the human brain
5 acquires, processes, and stores information—like the factual circumstances to which other
6 witnesses will testify—and the ways in which those factual circumstances affect memory. Cross-
7 examination of the lay eyewitnesses in this case will not yield this kind of specialized knowledge,
8 yet it is necessary for a jury to consider this information in making an educated, accurate
9 determination as to the credibility of eyewitness identification testimony. As such, is undoubtedly
10 a proper subject for trial testimony.
11

12 **c. Conformity to a Generally Accepted Explanatory Theory**

13 The science that the defense wishes to elicit is generally accepted not only in the
14 scientific community, but also in the law enforcement community—state and federal—and in the
15 court system. In fact, the vast majority of United States judicial jurisdictions—forty-seven (47)
16 of fifty (50) states—routinely allow expert testimony in re the psychology of eyewitness
17 identification). Regarding the scientific community specifically, The National Academy of
18 Science has endorsed the science to the defense wishes to elicit through the testifying expert's
19 testimony. As recently as 2014, the National Academy of Science has noted a significant trend
20 “toward greater acceptance of expert testimony regarding the factors that may affect eyewitness
21 identification.” *See* ASSESSING THE CULPRIT, *Chapter 3: The Legal Framework for Assessment of*
22 *Eyewitness Identification Evidence*, p. 31-44 (attached hereto as “Exhibit D.”)
23

24 Additionally, there have been numerous scientific articles on the efficacy of eyewitness
25 testimony published in recent years. Illustrative of this fact are the two scientific studies – The
26 Effect of Suspect-Filler Similarity on Eyewitness Identification Decisions: A Meta-Analysis,
27
28

1 attached hereto as Exhibit E and The Eyewitness Post Identification Feedback Effect 15 Years
2 Later: Theoretical and Policy Implications, attached hereto as Exhibit F.

3 Additionally, all noticed experts have a list of peer-reviewed publications in respected
4 scientific journals, and have, on multiple occasions, been entrusted with evaluating the work of
5 scientists in their field. Advancements in science are precipitated by professional disagreement,
6 which, in turn, is the impetus for continued research and testing. The testifying expert will testify
7 to the scientific processes underlying the accumulation of reliable scientific conclusions
8 pertaining to memory and eyewitness identifications in criminal cases. They can also testify to
9 the limitations of scientific evidence pertaining to memory and eyewitness identifications.
10

11 It is worth mentioning that the State's argument against the admissibility of eyewitness
12 identification expert testimony relies on cases largely dated in the 1980's and 1990's. Because
13 only string cites are presented without factual scenarios, the exact reasoning is not evidenced.
14 The only Nevada Supreme Court case cited in support of its contention that eyewitness
15 identification expert testimony would improperly invade the province of the jury is *Porter v.*
16 *State*, 94 Nev. 142 (1978), which is from nearly 40 years ago and was distinguished by
17 *Echavarria v. State*, 108 Nev. 734 (1992).
18

19 **d. Probative Value Versus Prejudicial Effect**

20 An expert is qualified to testify if the probative value of his testimony is not substantially
21 outweighed by prejudicial effect. Here, the proffered expert testimony is probative of evidence
22 central to the State's prosecution: eyewitness identification implicating Defendant Valentine. He
23 will elucidate the circumstantial factors and scientific processes impacting perception and
24 memory. This testimony will educate the jury, allowing it to make an appropriate, informed,
25 accurate assessment of witness credibility as it pertains, specifically, to eyewitness identification.
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1 As noted above, the testifying expert will not draw or testify to any ultimate conclusion
2 regarding the accuracy of the identifications in this case or the credibility of witnesses who
3 testify thereto. Those are not determinations for an expert to make, a fact of which he/she is well
4 aware. The Defense acknowledges that, were its expert to draw such conclusions at trial, his/her
5 testimony in that regard would unfairly prejudice the State. Having acknowledged the same, the
6 Defense would not elicit such testimony.

7
8 The probative value of Dr. Reisberg's testimony is not outweighed by potential
9 prejudicial effect to the State. In the prior-bad-acts context, the State frequently argues that the
10 introduction of bad acts evidence is not excludable simply because it prejudices the Defendant
11 because, after all, all inculpatory evidence prejudices the Defendant. That argument holds true in
12 this context: expert testimony is not so prejudicial as to warrant exclusion just because there is
13 potential for the testimony to hurt the State's case. That this testimony will aid in defending Mr.
14 Valentine does render it inadmissible. An eyewitness identification expert's testimony is
15 probative of the eyewitness identifications in this case, and will provide the jury with a thorough
16 and sophisticated understanding of those factors that impact risk of error in identifications. This
17 information is relevant, probative, and admissible because the prejudicial impact, if any, to the
18 State would be minimal.

19
20 ***B. Eyewitness expert testimony will assist the trier of fact in understanding eyewitness***
21 ***identification science.***

22 The expert testimony will educate the jury far beyond the common sense and experience
23 it brings to bear in this case. Specifically, the testifying expert will explain how the human brain
24 acquires, interprets, processes, and stores information, and he will elucidate how this science
25 impacts risk of error in eyewitness identifications. As mentioned above, the jury will use this
26 information to draw its own conclusions about the accuracy of the identifications in this case,
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1 and the credibility of the witnesses who testify thereto. This cannot be overstated: any testifying
2 expert will neither usurp nor even marginally infringe upon the province of the jury.

3 Very simply, the jury must understand the science that explains the relationship between
4 memory and the risk of error in eyewitness identification. This is especially true in a case where,
5 as here, law enforcement utilized policies that are potential suspect when considered in the light
6 of accepted scientific principles, resulting in a presumptively suggestive eyewitness
7 identification procedure, the impact of which the identifying lay witnesses are entirely unaware.
8 Due process and fundamental fairness dictate that Mr. Valentine be permitted to contextualize
9 these identifications by educating the jury with expert testimony—testimony regarding the
10 fallibility of memory and the corresponding risk, if any, of eyewitness misidentification. Mr.
11 Valentine cannot elicit this testimony through the cross-examination of lay witnesses; this is
12 especially true because, some of the cognitive processes that introduce risk of error occur
13 unbeknownst to the identifying eyewitness. Expert testimony is the only way to present this
14 information, and this information is critical to enabling the jury to accurately assess two critical,
15 factual issues in this case: identification accuracy and witness credibility.
16
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18 ***C. The facts in this case demand expert testimony as to the science of eyewitness***
19 ***identification.***

20 The noticed eyewitness identification experts are qualified as experts under the *Hallmark*
21 factors. Their testimony is admissible, especially in light of the questionable identifications in
22 this case. All but one of the alleged identifications was conducted as “show-ups” and took place
23 in front of marked police vehicles while Mr. Valentine was handcuffed. The single “six-pack”
24 line-up was similarly improperly conducted, as the arresting detective who knew the identity of
25 the alleged suspect conducted line-up. Additionally, the descriptions of the alleged subject are
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1 not identical to Mr. Valentine. This case was taken to the Grand Jury, so defense counsel has not
2 been afforded the opportunity to question the eyewitnesses on the details of their identifications.

3 The Nevada Supreme Court permits expert eyewitness identification testimony if the
4 facts of a given case reveal considerable doubt as to the reliability of an eyewitness. *See*
5 *Echavarria*, 108 Nev. at 746. The Court held in *Echavarria* that it was error to exclude expert
6 eyewitness identification testimony where, as here, considerable doubt as to the reliability of an
7 identification renders expert testimony necessary and admissible. *Id.* at 746-47.

8
9 In this case, the police orchestrated—in violation of recommendations promulgated by
10 both the Department of Justice and the National Academy of Science—unnecessarily suggestive
11 environments for the identifications. Defendant Valentine’s defense is largely based upon
12 questionable nature of the alleged identifications. In short, law enforcement actions in this case
13 raise considerable doubt as to the reliability of the identifications in this case, rendering expert
14 testimony necessary, relevant, and admissible. *Id.*

15
16 If the Court wishes to know more about how the defense intends to contradict the
17 additional evidence stated as “fact” in the State’s motion, defense counsel is more than happy to
18 offer details outside the presence of the State.

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EXHIBIT A

ORIGINAL

DISTRICT COURT
CLARK COUNTY, NEVADA

FILED

DEC 17 2 56 PM '07

ORIGINAL

THE STATE OF NEVADA,

Plaintiff,

vs.

JESUS R. MERAZ,

Defendant.

Craig L. Hendricks
CLERK OF THE COURT

) CASE NO. C216763
) DEPT. XXI
)
)
)
)
)

BEFORE THE HONORABLE VALERIE ADAIR, DISTRICT COURT JUDGE

Tuesday, October 23, 2007

RECORDER'S TRANSCRIPT OF HEARING RE:
TRIAL PROCEEDINGS
DAY 6

APPEARANCES:

FOR THE STATE:

CRAIG L. HENDRICKS, ESQ.
Chief Deputy District Attorney
DANIELLE K. PIEPER, ESQ.
Deputy District Attorney

FOR THE DEFENDANT:

CRAIG A. MUELLER, ESQ.
TERRY Y. JONES, ESQ.

RECORDED BY: JANIE L. OLSEN, COURT RECORDER
TRANSCRIBED BY: KIMBERLY LAWSON

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DEC 17 2007

CLERK OF THE COURT

1 MR. MUELLER: Thank you, Judge. The defense would
2 recall Robert Shomar.

3 THE COURT: Would you please come on up here to the
4 witness stand and just remain standing while our court clerk
5 administers the oath.

6 ROBERT WILLIAM SHOMAR, DEFENDANT'S WITNESS, SWORN

7 THE CLERK: Please be seated.

8 THE WITNESS: Thank you.

9 THE CLERK: Sir, please state and spell your name.

10 THE WITNESS: Robert William Shomar, R-o-b-e-r-t,
11 W-i-l-l-i-a-m S-h-o-m-a-r.

12 DIRECT EXAMINATION

13 BY MR. MUELLER:

14 Q Dr. Shomar, sir, what is your field of expertise?

15 A I'm a psychologist with a background of
16 experimental psychology. My particular area has to do with
17 what's called eyewitness perception, eyewitness memories and
18 the procedures that are used to try to recapture, gain what it
19 is that people saw or what they remember and the various
20 factors that influence human beings seeing things and
21 remembering things accurately or inaccurately and the various
22 things that occur when people try to reconstruct their memory
23 or try to remember whatever it is they've seen. That's my
24 particular field of, I guess, what you would call expertise.

25 Q Sir, what formal training and education have you

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1 had? If you can, start post high school and —

2 A Sure. I received my bachelor's degree with honors
3 in experimental psychology at UCLA. Prior to that, I actually
4 took a large number of courses that were basically pre-med,
5 including human anatomy and physiology and all of the things
6 that would be pre-med courses.

7 But I went into experimental psychology. I was
8 accepted into the doctorate program of experimental psychology
9 at UCLA. While I was in the doctorate program, I taught for
10 UCLA and did research that was published in the peer-reviewed
11 journals in experimental psychology and received my doctorate
12 in experimental psychology in 1966.

13 Upon receiving my doctorate, I was offered a number
14 of faculty appointments and I was fortunate enough to have
15 offers from Yale and Harvard and Dartmouth and Carnegie-Mellon
16 and University of Pittsburgh, University of Texas and so on.

17 I accepted the offer from Harvard University where
18 I was an assistant professor in three departments at the same
19 time. I was teaching experimental psychology in three
20 departments. I did a number of projects for the United States
21 Navy, for the advanced research projects agency at the
22 Department of Defense, for the National Science Foundation,
23 National Institute of Mental Health and other agencies that
24 funded research that I did.

25 So I taught courses, did research, returned to the

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1 west coast with a ten-year track position at the Claremont
2 Colleges, which is a group of colleges outside of Pomona east
3 of LA.

4 I served in that capacity for ten years. While
5 there, I first qualified and testified as what you'd call an
6 expert witness in court. That was back in 1974 in the area of
7 eyewitness perception, identification, memory and so on.

8 I also began working for a police department. I
9 served as the psychologist for the City of Hawthorne police
10 and fire department for five years. That brought me in
11 contact with a medical group in the Hawthorne area. I retired
12 from full-time college teaching out of the cumulative 15 years
13 and joined the medical group and eventually became the
14 president and CEO of the whole group, about 130,000 patients
15 and 100 physicians and ten offices.

16 Throughout all that time from '74 on, I was
17 retained and hired and whatever you want to call it, came into
18 court and testified as an expert witness in eyewitness
19 identification, perception, memory and so on.

20 I've retired from the medical group and now I focus
21 primarily on working in court.

22 Q Sir, have you ever been qualified as an expert
23 witness in eyewitness perception in court?

24 A Yes, I have, in about 15 states, probably a total
25 of several hundred times. I lost track of how many times.

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1 But several hundred times since 1974. I've also testified in
2 the U.S. federal court as well as United States military court
3 martials.

4 Q Sir, have you ever been qualified as an expert
5 witness here in the Eighth Judicial District Court for Clark
6 County, State of Nevada?

7 A Yes, I have, many times over the last 30 years.

8 Q And have you been qualified as an expert witness in
9 eyewitness perception?

10 A Yes, I have.

11 Q All right.

12 MR. MUELLER: Judge, at this time I'd move to
13 have —

14 MR. HENRIOS: Judge, I —

15 THE COURT: Yeah. He can give his opinion on this
16 area.

17 MR. MUELLER: All right. Thank you, Judge.

18 BY MR. MUELLER:

19 Q Now, sir, when we talk about — in general, without
20 any reference to any particular cases, in general, can you
21 explain — the human memory is just like a video recorder,
22 right? If I see something, I'm going to remember it forever
23 and it's reliable forever, correct?

24 A Absolutely not.

25 Q What do you mean, Doctor?

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1 A Well, one of the key things here is to understand
2 how things actually work. So what you depend on is a body of
3 research, not just an opinion or, you know, somebody's
4 thoughts about how this works or some kind of fictile
5 treatment, but how does it actually work. For that you
6 actually have to do research on people.

7 So there is this huge body of research on
8 eyewitness memory, eyewitness perception, identification,
9 testing procedures, and that's a body of research upon which I
10 depend for anything I say. So when I answer a question, I'm
11 not talking about some research program of my own. I'm
12 talking about a large body of research, how do people actually
13 do this.

14 And the bottom line is we're not video cameras.
15 Video cameras take a very clear picture if there's enough
16 light, if there's enough time, if there's enough distance,
17 depending on whatever's going on, regardless of whatever is
18 going on. Whether it's an unexpected fight or a shooting or a
19 peaceful picnic, quality pictures either way. The human being
20 is very different.

21 As soon as the light enters the eye, it hits the
22 retina. The retina is actually part of your brain. It is
23 actually brain tissue. Now, whatever's going on in the
24 situation is influencing your brain to pay attention to
25 various things and not pay attention to other things. If it's

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1 a sudden, violent situation, the focus of attention is
2 completely different than if it is a calm, peaceful situation.
3 Even if it's good lighting, adequate time and adequate
4 distance, your brain works differently. So the actual
5 information is not stored — not paid attention to the same
6 way, it's not stored the same way, and therefore when somebody
7 asks you, well, what did you see, you're not getting a replay
8 of some kind of videotape. We do not play back videotape.
9 There is no such photographer up in the brain.

10 Q Well, then, sir, what are the weaknesses of human
11 memory and how do we minimize them?

12 A There are two basic aspects to it. The first is
13 that we forget things. So memory decays. That's kind of
14 common sensical. We don't really need a lot of attention to
15 that or expert testimony. I mean, we all forget things. But
16 I think a lot more interesting affect is if time passes, we
17 actually interject, we incorporate, we mix together other
18 things.

19 Now, these other things are very much like pieces
20 of a jigsaw puzzle. When somebody asks you, what is it you
21 remember about a scene, you may remember A, you may remember
22 C, but you maybe didn't see the intermediate piece, which is
23 B. So we've got two puzzle pieces and a blank. Well, blanks
24 are not something you remember. You know, there is the old
25 statement about nature employs a vacuum. Well, the human

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1 memory employs a vacuum also.

2 So you basically assume what happened in the middle
3 and your assumptions, therefore, become a part of your memory
4 about what occurred. So really what you're getting is a
5 mixture of what you saw and what you think occurred, what
6 you've come to believe occurred. And that part is based on
7 information, again, you get from other people, assumptions
8 you're making, a kind of a theory you've come up with about
9 what happened.

10 These things actually become memories to the point
11 where honest, well-meaning human beings really can't separate
12 out what the assumptions were and what the actual observations
13 were. So if somebody asks you what occurred sometime after an
14 event, you're really giving them a mixture of observations
15 you've made, and if it's a sudden, violent situation or
16 emotional situation or somehow you're impaired by alcohol or
17 drugs and you didn't take everything in, you're giving a
18 rendition that's a mixture of a lot of different things.

19 Some of it is direct observations but a lot of it
20 is stuff you've come up with that you think occurred, that you
21 see occur that is reasonable to believe occurred based on
22 whatever you think occurred. That's really the way your
23 memory works.

24 Most of the time it's okay. But on a sudden,
25 unexpected very dramatic situations where it's really

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1 important to be accurate is where we find out where the limits
2 of accuracy are. And we're really pretty low. Human beings
3 are not very accurate about these things. And different
4 eyewitnesses will give you completely different accounts of
5 what occurred during the same situation.

6 Q Sir, you said sudden traumatic events. Well,
7 doesn't stress create a jolt of energy and doesn't that make
8 people remember things more?

9 A It's just like a video camera. That sounds like a
10 reasonable thing, you know, that a camera up in our brain or
11 stress stamps in, you know, the old kind of sealing wax
12 notion, that you've got this molten wax and you've pressed on
13 it real hard and that's the stress and you'll keep it there
14 engraved on your mind forever.

15 As a matter of fact, the reality is the actual data
16 in human behavior is you are far less accurate under stress.
17 You may have strong memories, but the memories are far less
18 accurate.

19 The specific research that's been done recently is
20 with 500 special forces troops. They were exposed to high
21 stress. The blood samples were taken to make sure they were
22 under stress, that it wasn't just somebody's opinion that they
23 were under stress, that they were under stress. They sat
24 across from an interrogator for 45 minutes, good lighting,
25 small distance. 45 minutes is adequate duration. Within two

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1 days they were given very good police identification
2 procedures.

3 The accuracy rate in picking out the face of their
4 interrogator, the person who sat across from them for 45
5 minutes, was only 30 percent. 70 percent of them either got
6 it wrong or they couldn't pick out a face. In a low stress
7 condition, there was significantly more accuracy, but even
8 then it was only at a 53 percent level.

9 So when you really get the data on this, you find
10 out how things actually work. A lot of these common sensical
11 emotions that, you know, stress stamps in, you act like video
12 records, if you've got stress and a video recorder, you've
13 really got a good clear image like a flashlight going off, none
14 of this is actually supported when you actually study real
15 human beings.

16 And this is not a situation where you get some
17 reports saying yes and some reports saying no. This is now
18 human beings under real stress. They perform very poorly in
19 terms of accuracy. Will they ever forget that they were in
20 the situation? No. There's a strong memory of being there.
21 But the strong memory for detail is not there. We are more
22 accurate under low stress, less accurate under high stress.

23 Q Sir, if someone's kind of a high confidence, if
24 they are certain of what they saw or 100 percent certain of
25 how they perceived it, does -- is there any studies done to

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1 correlate the confidence of the perceiver and the accuracy,
2 the verifiable accuracy of the memory?

3 A Yes. That's probably the most studied factor of
4 all. In other words, can you use somebody's confidence in
5 what they say. I'm 100 percent sure this is what occurred or
6 this is who I saw. Can you use that as a guide to how
7 accurate they are? That's a very reasonable and important
8 question. That's why it's attracted so much research.

9 And the answer is you can't, because what you're
10 really getting is the commitment of somebody to a particular
11 version. Now, that commitment comes about by how many times
12 you repeat it. That commitment comes out based on what you
13 think occurred or what you've committed yourself to saying.
14 And it has, it's been found, nothing really to do with
15 accuracy.

16 Unsophisticated people, people who, you know,
17 perhaps are not used to really questioning a lot can come to a
18 conclusion very, very quickly. Youthful people, teenagers can
19 come to a conclusion very quickly. That conclusion is
20 something they hold very dearly but that conclusion has been
21 found not necessarily to be accurate. I'm not saying all
22 young people are wrong, I'm simply saying that some of the
23 dimensions you look at with respect to how they evaluate
24 things are age, sophistication, what's going on in the
25 situation, and all of these things are far more predictable

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1 accuracy than somebody's confidence level.

2 I'm absolutely sure sounds good and we use it a lot
3 if you're asking people for directions, but it doesn't have
4 any predicted value in this area.

5 Q Sir, the low relationship between accuracy and
6 confidence and the results, is that a result of people lying
7 or can people honestly be wrong?

8 A Well, I'm not a lie detector so people could be
9 lying, but I don't see that and the research doesn't assume
10 that. We're dealing with people who, to all intents and
11 purposes, are telling you the truth. It's something they have
12 come to believe. It's very much like the individuals who have
13 identified somebody and then the DNA comes along and
14 exonerates them and they still believe that's the person who
15 did it because they've committed themselves to that.

16 Now, this victim of a crime, a horrible crime, is
17 not lying. She really believes that was the guy, the correct
18 guy she identified. But it turns out it wasn't the correct
19 guy. So somebody's state of truthfulness, whether they're
20 lying or not, is not an issue here. I'm assuming everybody's
21 telling the truth. I'm assuming that people come to believe
22 certain things. And once they come to believe it, they really
23 can pass any kind of lie detector test you could give them.
24 So they really are not lying. They really believe it. And
25 the question is, how accurate it is. And that has to be

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1 assessed on other grounds.

2 Q So someone's confidence, 100 percent certainty in
3 their identification, not necessarily accurate?

4 A No.

5 Q Now, sir, some of the stress factors, some of the
6 factors that affect the accuracy of a memory, the closer in
7 time the event to the recollection is recorded, is that --
8 does the passage of time increase or decrease accuracy and
9 recollection?

10 A Well, the key thing is you want to get reports as
11 soon as possible because of two main factors. Memory for
12 events fades fairly quickly in terms of accuracy for detail.
13 You always remember you were in a certain event, but if you're
14 really interested in the accuracy of who did what, who was
15 there, what actions they took, that fades very quickly over
16 time. So clearly the reports closer in time to any kind of
17 event are far more accurate in a major way, significantly more
18 accurate than delayed reports.

19 Q And when you were advising the Hawthorne Police
20 Department, did you advise them to attempt to get statements
21 as close after the fact as possible?

22 A Right. I was not -- I don't want to misrepresent
23 my role there. I wasn't training them on eyewitness
24 reporting, but I -- that wasn't my formal role. My role was a
25 screening psychologist. Everybody who was hired has to go

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1 through my process. But I used that podium, so to speak, to
2 really try to train them in investigatory techniques to the
3 best of my ability based on experimental psychology. And
4 several of them, many of them over the years, would come back
5 to me and say, How do I handle this kind of situation and
6 that. So that wasn't my formal role but I did it as well —
7 or as many times as I could.

8 Q All right. The nature of the relationship with a
9 party involved in a memory, more or — say your spouse or the
10 more you know them, the more likely you are to have a
11 relationship with them, does the closer the relationship make
12 for more accurate memory?

13 A Well, certainly the death of a loved one, violence,
14 you know, happening to somebody close to you, that is a major,
15 major blow to anyone's psychological structure. It changes
16 the way you think about things and it changes how you want to
17 come up with an answer. None of us are happy with some random
18 event occurring. We try to figure out patterns and things,
19 how did something occur.

20 The problem is that sometimes we come up with
21 better theories than the data can support and so the closer
22 you are to somebody, the more important you see it. So if a
23 random person you don't know gets — you know, is the victim
24 of a terrible event, it's shocking but it's not as much of a
25 motivation to figure out what happened. Who did it? That's

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1 you think about it on your own and you keep repeating it, you
2 can enshrine error as well as learn the lines. I've done that
3 myself. I can't remember the lines to Hamlet, To be or not to
4 be. I came up with a version which I really thought was great
5 and, oh, yeah, I've really got this now. And I read the lines
6 and I had moved paragraphs around, which is very easy to do,
7 because we are not, you know, trained memory experts.

8 Q How does intoxication, sir — how does that affect
9 the way memories are recorded and what are the reliability?

10 A It's a — alcohol is a major central nervous system
11 depressant and what it does is affects the intake of
12 information that is the focus. It affects the accuracy with
13 which that information is stored. And if that information is
14 not attained or obtained and then stored separately, obviously
15 it's not there when you want to report.

16 So one of the key reasons we ingest alcohol is to
17 change mood. You know, it actually changes the way the
18 chemicals work to pass information from one neuron to another.

19 Q And —

20 A I'm sorry.

21 Q I'm sorry. I didn't mean to interrupt, sir.

22 A It's okay.

23 Q Has there been any studies done as to the amount of
24 alcohol and how it affects memories?

25 A There has been very carefully calibrated studies of

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1 really the key issue, who's responsible.

2 Q And are these the assumptions you were talking
3 about that people build into their memories when they record
4 them?

5 A Absolutely, because memory, again, is not a video
6 recorder, a sign engraved in stone. It is a dynamic process.
7 It doesn't exist up there in some little water-tight
8 compartment. We exist as a dynamic construct which constantly
9 changes. Every time you report, that new report becomes part
10 of our memory of the original event. So this is not something
11 that's sealed off somewhere and you're going to use some
12 special technique and only get into that little water-tight
13 box. It doesn't work that way at all.

14 Motivations affect memory, like trying to find who
15 did something to someone you were close to. Time affects
16 memory. Information from other people affects memory. Who's
17 asking the question affects memory. How they ask you the
18 question, the assumptions they make. We all know about
19 leading questions and suggestions. It's important because the
20 way your question can actually change the memory.

21 Q Now, sir, so actually if I'm following your thought
22 to its logical conclusion, then actually just bringing up
23 memories and thinking about them can change them?

24 A Oh, absolutely. See, if you want to memorize the
25 lines of a play, you better have the script there because if

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1 that kind where you actually do a dose affect kind of
2 relationship and, you know, clearly you get a very different
3 affect depending on how much alcohol you consume, but moderate
4 alcohol drinking or even minor alcohol drinking has an affect.
5 I don't need to be an expert to know that. We all know that.

6 Q Someone who's consumed approximately three or four
7 beers, are — is their memory going to be particularly
8 reliable?

9 A Not as reliable as without those beers.

10 Q Now, emotions, sir. Someone's distraught. I guess
11 we kind of covered that. Someone's distraught by an
12 occurrence. How is that going to affect memory?

13 A Well, memory is not instantaneously recorded. That
14 is, events come in, they stay in sort of a short-term buffer.
15 Then there's a consolidated period where they get converted
16 into long-term storage. The short term to long term takes a
17 certain amount of time. High emotion disrupts that very
18 process. High fear, high stress disrupts the process of
19 converting short-term memory which is in that kind of buffer
20 unit into a long-term permanent memory.

21 Q So the more distraught or emotionally distracted,
22 stressed out someone is the time less reliable that memory
23 becomes when reported later?

24 A Exactly.

25 Q Now, how about time of observation, sir? Do you

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1 recall what color my tie is right now?

2 A I do not.

3 Q Now, sir, the fact of the matter is the amount of
4 time you had to observe something, how does that affect the
5 accuracy of the memory?

6 A Well, it's interesting because it's not time per
7 se. It is focus of attention. You and I were looking at each
8 other. In fact, I saw you outside before. I never paid
9 attention to the color of your tie. So when you just asked
10 me, I really didn't remember.

11 Now, your tie was there. I could see it. There
12 was enough lighting for me to see the color. Obviously, we
13 were in contact for some length of time. I wasn't paying
14 attention to it.

15 We all can experience this, by the way, if you're
16 driving and using your cell phone. Your focus of attention is
17 completely different. And you can control your car, you're
18 not smashing into things, so you see enough to know that. But
19 you're not paying attention to your surroundings. So really
20 duration per se doesn't work like a camera.

21 A camera needs enough time to take a picture, but
22 having enough time for a human being doesn't guarantee you're
23 going to pay attention. So clearly, it's not something that
24 guarantees accuracy. You need enough time to see something,
25 but just having the time doesn't mean you're going to pay

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1 attention to it.

2 Q All right. And one last concept I want to talk to
3 you about, distinctiveness, sir, unusual things, things that
4 are a little different than normal. How is — or how is the
5 reliability of people reporting things out of the ordinary?

6 A Well, distinctive things are things that catch our
7 attention. So if somebody has a distinctive appearance,
8 somebody has a radically different kind of or statistically
9 different kind of appearance than most people, very tall, very
10 short, very heavy, different hair style, scars on the face,
11 those kinds of things capture our attention. We pay attention
12 to those people in terms of just sort of remembering they were
13 there.

14 Now, remembering somebody was there is not the same
15 as being accurate about everything they've done or what
16 anybody else has done, but at least we pay attention to the
17 fact that person was present in our visual field.

18 Q All right. Now, you said accurate. Now, when
19 people report memories, they include their assumptions, but
20 can they get part of the story right and not be accurate on
21 part of the story?

22 A Oh, absolutely. There's all kinds of effects. For
23 example, a phenomena called transposition or source confusion.
24 It's one thing to know somebody was at a scene. It's another
25 thing — turns out completely different thing to know what it

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1 is that they've done.

2 Now, if there's only one person, clearly, a mistake
3 like that or any kind of source confusion wouldn't occur. It
4 was one person, actions occur. That's the person who did it.
5 But if there are multiple individuals in a highly emotional
6 scene, it is quite common to have what's called source
7 confusion or transposition.

8 Both terms refer to — you may see a person there,
9 you may be right about the person being there. If the person
10 was distinctive, you're probably correct he was there. But
11 now the issue is what did that person do, what actions did
12 that person engage in as compared to other people. So
13 remembering the actions or hooking them up correctly to the
14 people can happen. I mean, people can be accurate about that
15 but they can also be wrong. They can also be wrong at a very
16 high rate of occurrence.

17 If it's a sudden emotional scene involving a lot of
18 people, transposition and source confusion have been found to
19 occur very, very readily.

20 Q Now, sir, there's actually been some phenomenon of
21 transposition, correct?

22 A Yes.

23 Q So are you familiar with the concept of — let's
24 rephrase it — weapon focus?

25 A Yes.

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1 Q Are you familiar with a concept — what's the
2 concept of weapon focus?

3 A Well, weapon focus is basically a very functional
4 thing. If there's a weapon present, people look at it, they
5 focus on it. It is almost like tunnel vision.

6 If you have ever scattered iron filings over a
7 piece of paper and put a magnet underneath and you move the
8 magnet and you see the iron filings reorient themselves on the
9 focus of the magnet, that's a kind of thing — that's an
10 analogy to what goes on visually. If there's a weapon
11 present, people pay attention to it, but what that means is
12 they're far less accurate about everything else around the
13 weapon.

14 So that — one of the kinds of transposition or
15 source of confusion errors that can occur is who handled the
16 gun, where did the shots come from, who's shooting. These are
17 the kinds of errors in a highly emotional and very life
18 threatening dangerous situation that can occur very readily.
19 Because a weapon doesn't create more accuracy, it creates far
20 less accuracy.

21 Q So it becomes basically a source of almost like a
22 tunnel vision? People focus on the weapon exclusively and
23 forget the surrounding details?

24 A Exactly, or don't pay attention to the surrounding
25 details so they're not there to remember or forget.

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1 Q Now, have you done similar studies of the accuracy
2 of witnesses after they've been exposed to a situation where a
3 weapon was present versus those that have not?

4 A Yes, they are far less accurate in identifying the
5 individuals involved.

6 Q You're telling me, Doctor, that actually by having
7 a weapon there, people focus on that and the exclusion of
8 other items?

9 A Well, they're less accurate. Exclusion is, you
10 know, a little bit of a heavy duty word in the sense that it's
11 almost like the weapon is floating in the air. The weapon's
12 not floating in the air. It's just that you don't take in
13 once you have the focus of attention.

14 You're driving your car, you're talking on your
15 cell phone. It is not as if nothing exists. You're just not
16 paying any attention to it. So it's a similar kind of
17 phenomenon, but with weapons it's even stronger.

18 Q Well, what kind of research and real life
19 observations support your opinions here, Doctor?

20 A Well, there's a very, very large body of research
21 studying police involved shootings, the tragedies of friendly
22 fire where people on our side are mistaken for the enemy, and
23 air traffic controller errors. These are the kind of errors
24 that occur on highly stressful life-threatening kinds of
25 situations with police officers and military weapons are

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1 almost always present. And there's a very, very large
2 representation of what's called auditory and visual
3 hallucinations.

4 They call them hallucinations not because anybody's
5 mentally deranged but because what is being seen is not
6 actually what occurred or what occurred is not being reported.
7 So there are errors of omission and errors commission. And
8 these kinds of observations occur where weapons are present,
9 where there's stress, where there's multiple individuals
10 involved. I mean, human vision and perception and memory are
11 not at their best under situations like that at all.

12 Q They're called combat blindness or combat stress?

13 A That's a term that is often — the fog of war is
14 another illustrative term; but, yes, combat stress is a
15 perfectly good example.

16 Q So someone under the stress of battle will focus on
17 the enemy's weapon and the enemy's location or — but ignore
18 or not perceive obvious signs that they aren't the enemy?

19 A Right.

20 Q When you take away the stress, it becomes
21 immediately obvious that they're making a grave error?

22 A Exactly.

23 Q Now, let's get a little closer to the real world
24 here, sir. Have you ever been asked to testify on behalf of
25 the district attorney's office?

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1 A I have not yet been asked to testify. I've been
2 asked to assist in cases up to the point but have never been
3 asked to testify.

4 Q Now, do you have any problems with testifying on
5 behalf of either side?

6 A Not at all.

7 Q Your expertise here is in the assessment of memory
8 and how it works and how it is to be interpreted?

9 A Right. There's a body of research out there, I
10 mean, real research and people. I'm simply a messenger
11 bringing the results of that research into a different kind of
12 arena. I'm not talking about my research program. I'm not
13 selling a particular point of view that's mine. I'm talking
14 about a body of research out there that has confirmed all
15 these points I have mentioned.

16 Q All right. Sir, now, is there anything unusual
17 about having several eyewitnesses to the same event
18 recollecting or having conflicting details?

19 A No. That's, in fact, very common. Noted
20 historians over the years and the Ancient Greeks have talked
21 about, My labor took so long because of too many eyewitnesses.
22 And basically what they're saying is too many people have
23 different versions of what went on, so the difference in their
24 individual versions is very common.

25 Q So we've got people who honestly and sincerely

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1 recollect different things?

2 A Exactly.

3 Q Perhaps one simply can't exist at the time of the
4 other, so somebody's clearly mistaken without intentionally
5 being deceptive?

6 A Exactly.

7 Q How — what factors would we use to evaluate and
8 determine which one of the reporting witnesses has encoded
9 some assumptions that were inaccurate?

10 A Time of reporting would be one of the first things.
11 When did they report, soon after the event or at some much
12 more delayed time. That would one issue.

13 What was their vantage point and who are they. So,
14 for example, if they were somebody who was very emotionally
15 involved in the situation, that has to be taken into
16 consideration. If they were safer, sitting in an area where
17 they weren't actually part of the potential life-threatening
18 stress, but could see things, their report would also gain
19 credibility that way. The emotionally involved person is very
20 close. Their report would have less credibility as compared
21 to the other ones.

22 Who are the witnesses? Are they sophisticated,
23 intelligent people who give very consistent reports? Is there
24 a number of them that give a report and then one or two
25 perhaps that give very different reports? So you look at

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1 consistency among people; consistency internally within their
2 reports. Those would all be factors that you look at.

3 Time of report, emotional involvement, some little
4 separation from the danger so that you could actually be safer
5 while you're seeing what's going on, all of these things would
6 be factors that you would look at to evaluate which of the --
7 all eyewitness accounts are actually more accurate.

8 Q Well, let's say what we're talking about and what
9 we're not saying here, sir. Are you telling us you can't
10 believe people when they tell you what they've seen?

11 A No, I'm not saying that. I'm saying that you have
12 to take it with a big grain of salt and analyze it carefully
13 because people honestly, truly report the reconstruction of
14 their memory.

15 Remember, when you ask them, they're not playing
16 back some sort of videotape they've got stored away. They're
17 doing the best job they can do, in being honest, in
18 reconstructing the memory of what they saw. And they have no
19 way of separating the assumptions they're making from the
20 observations they've made. So they're telling things in a
21 coherent, consistent way, but many of the intermediate links
22 may be things they've assumed rather than what they actually
23 saw.

24 And people in a large event with a lot of people
25 around that's stressful can actually get it wrong and believe

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1 evidentiary value, there are some givens, correct, that have
2 to be followed?

3 A Well, yes, certainly.

4 Q And what would those be?

5 A Forgive me one second. I drenched myself with my
6 water.

7 THE COURT: Do you need a Kleenex or something?

8 THE WITNESS: It's okay. I apologize for my
9 clumsiness. That's fine.

10 The givens have to do with the way the test is run,
11 the preconceptions of who's doing the test. For example, it's
12 very clear that if the test is administered by someone who has
13 a strong theory, they can actually influence the results.

14 BY MR. MELLER:

15 Q And how specifically can that happen, sir?

16 A Well, it happens through a phenomena we're all used
17 to, and that's tells, t-e-l-l-s. We actually read body
18 language from other people. We do it all the time. We are
19 human beings who exist in groups. The reactions of other
20 people are important to us. We're not little islands unto
21 ourselves.

22 So if you're with a police officer that has a
23 strong theory about what -- who the identity of the person is
24 or whether they were there or not, that attitude has been
25 found conclusively to affect the identification. That's why a

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1 they -- a version of the story that has nothing to do with
2 what actually occurred.

3 Q All right. Now, sir, there is an -- there's a
4 concept called an eyewitness perception called a six-pack
5 lineup.

6 A Yes.

7 Q I'm sure over the years you've come in contact with
8 it before.

9 A Sure.

10 Q Can you explain to the ladies and gentlemen of the
11 jury what the theory is here behind the six-pack lineup?

12 A Sure. Basically, it is a test. You saw somebody,
13 now the issue is can you, in a fair, objective procedure,
14 demonstrate your ability to pick out that person from a set of
15 similar others.

16 Now, the reason six or, in some jurisdictions, nine
17 are used, you know, they have to be similar looking people so
18 that you can say whether or not that person who looks similar
19 to the other ones is the person you saw, whereas if you just
20 showed one picture, you can imagine how suggestive that is.
21 So it is a test. Multiple alternatives of views are used to
22 try to eliminate guessing or suggestivity, and that's
23 basically what you're doing.

24 Q Now, sir, the -- for this validity, for the
25 identification here to be of any particular validity or any

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1 major recommendation, for example, of the United States
2 Department of Justice is that these procedures be run in a
3 blind fashion.

4 All that means is that the person who's
5 administering it doesn't know which one is the person of
6 interest. So their body language, their assumptions, their
7 hypothesis cannot influence in any way. Inadvertently, body
8 language, posture, statements, anything can influence the
9 witness and that's a very reasonable precaution. Another
10 thing obviously is all the pictures should look essentially
11 alike.

12 Q No six white guys and one black guy or vice versa,
13 a white guy and five black guys, nothing like that?

14 A Yeah.

15 Q They've got to all look alike?

16 A Exactly, exactly.

17 Q Now, have you done -- if I were to give -- say I
18 was a police officer and I were to say, Hey, can you go give
19 this guy a six pack and not give my colleague any information,
20 does that dramatically increase the reliability of the
21 identification?

22 A Yes, that's a double blind procedure. Assuming
23 that he's the person administering it, showing the pictures to
24 the witness, doesn't know who's the person of interest, that's
25 absolutely a very, very important precaution.

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1 If you do placebos in medicines and the person
2 handing out the sugar pill versus the medicines knows which is
3 which, we've absolutely found they can alter the results of
4 the course of the medicine, much less picking somebody out of
5 a six pack.

6 Q And, sir, if I were to show someone a —
7 hypothetically, if I were to show someone a six-pack lineup
8 about seven or eight months after a violent, short duration
9 event involving people I don't know, give me a hypothetical,
10 and I — and sometime in the past between the incident and the
11 time of the lineup have been show a picture of one of the
12 suspects, does that increase or decrease the reliability of
13 the identification?

14 A Oh, there's no reliability —

15 MS. PIEPER: Judge, I'm going to object as to the
16 fact that this witness, although, he has extensive knowledge,
17 was not at the lineup.

18 MR. MELLER: It's a hypothetical question. I
19 haven't mentioned anything.

20 THE COURT: Well, it's overruled.
21 Could that impact...

22 THE WITNESS: Identification is based on
23 familiarity. If you have six pictures and you're more
24 familiar with one person because another picture of that
25 person has been shown to you, then you no longer have a fair

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1 matches the initial description that the witness gave more so
2 than any of the others, that was your comment about one
3 African American and five Caucasians, the description was an
4 African American and you show a set of pictures with five
5 Caucasians and one African American, that's, on the face of
6 it, absurd and unduly suggestive.

7 Another way of doing it is different color
8 backgrounds, one DMV driver's license pictures, and five
9 look-in pictures. Another could be the size of the head,
10 larger and smaller. So there's all kinds of ways you can
11 create problems in whether or not this is an objective and
12 valid procedure.

13 Q Sir, is it a fair — what would be the effect of
14 showing a videotape of someone very distinctive to a young
15 witness instead of doing a photo lineup?

16 A Well, what you really want is an ability to make an
17 identification in a fair, valid and objective test. By
18 showing a videotape where there's one distinctive person to
19 somebody who was, let's say, distraught, emotionally upset,
20 still in a highly emotionally charged way of operating in
21 their body — and adrenaline takes a long time to flush its
22 way out of the body — somebody grieving, somebody upset, they
23 are much more, as a rule, vulnerable to suggestibility than
24 someone who is in good health, good emotion, good emotional
25 balance and so on.

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1 and objective test. You've built into the situation a prior
2 exposure of one person.

3 In the common parlance there, you number things
4 from the upper left across and then you drop down, so it's
5 one, two, three, four, five, six. You've colored in box
6 number five. If you've seen a picture of that person before
7 administered to you by law enforcement and then you're given a
8 six pack, there's no level playing field there. One person
9 was shown to you previously.

10 Now, if you're trying to identify a person that you
11 saw even before the administration of that single picture,
12 there's no logic there. I mean, obviously if you can remember
13 the person at the incident, you're certainly going to remember
14 seeing one picture of them.

15 Now, if you ask somebody, do you remember that,
16 they may not tell you that they remember it. But clearly we
17 get inference about things all the time about which we're not
18 aware. So what you've done in a situation like that, it's
19 called repetition. You're creating an absolute blow to any
20 kind of fairness and objectivity in the results.

21 BY MR. MELLER:

22 Q Sir, what's the concept of unduly or — unduly
23 suggestive showup or lineup?

24 A Well, it has to aspects. Number one is if you
25 present one alternative, if you present one alternative that

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1 So fortunately, what you can do is create an answer
2 to a question they have, which is who's responsible, by
3 creating basically a nonlevel playing field. The six pack has
4 the advantage of giving alternatives and demonstrating whether
5 or not that person has the ability to pick out someone they
6 claim to have seen. If they can demonstrate that ability in a
7 fair test, it has a much greater significance than showing
8 them a videotape.

9 MR. MELLER: Can I get the Court's indulgence for
10 just a moment?

11 THE COURT: Sure.

12 MR. MELLER: I don't believe I have anything
13 further for this witness, Judge.

14 THE COURT: All right. Thank you, Mr. Meller.
15 Cross.

CROSS EXAMINATION

16 BY MS. PIEPER:

17 Q You talked about the U.S. Department of Justice and
18 doing a study in regard to six packs. Do you remember that?

19 A Correct.

20 Q Now, the FBI is part of the Department of Justice,
21 correct?

22 A I assume it is. I don't know what the lines of
23 authority are.

24 THE COURT: Are you going to use the easel.

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1 Ms. Pieper? All right.
2 BY MS. PIEPER:
3 Q And the FBI still uses six packs, right?
4 A I'm sorry?
5 Q The FBI still uses six packs, correct?
6 A I didn't get the intermediate part of your
7 question. The FBI still what?
8 Q Still uses —
9 THE COURT: Still uses six packs.
10 THE WITNESS: Oh, of course. There's nothing wrong
11 with using six packs. Six packs are a reasonable way of doing
12 things.
13 BY MS. PIEPER:
14 Q And how much — you're an expert, correct, Doctor?
15 A No, I don't consider myself an expert. It is a
16 technical term in court. An expert witness could be an expert
17 plumber, somebody that knows a little more about a particular
18 area than somebody else. So they designate witnesses and
19 expert witnesses. Witnesses are people that have information
20 about what occurred, they were there, and so on and so forth.
21 An expert is somebody who gives the type of testimony that
22 I've been giving. That's the only meaning for the word.
23 Q So how much did you get paid to work on this case?
24 A I've been here two days this week and —
25 Q How much do you get? Do you get paid per day or —

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1 Q And you've never testified for the State, correct?
2 A They haven't asked me to yet. It's interesting as
3 to why, and I'd be happy to tell you my opinion as to why they
4 haven't asked me.
5 Q That's okay.
6 A Okay.
7 Q Thank you.
8 And now, Mr. Mueller also asked you about a
9 videotape and whether showing a videotape to somebody was, I
10 think he said, proper. Do you remember those line of
11 questions?
12 A Well, if you're trying to get an identification of
13 somebody, the appropriate way to go about it is to first get a
14 detailed description from them.
15 Q Okay. And what if that was done, you get a
16 detailed description —
17 A Well, in the language they speak with a certified
18 translator so you know the quality of the information they're
19 giving you —
20 Q So how do you know that wasn't done in this case?
21 A Well, because I've read the police reports and I
22 know that the individual who ascertained a description doesn't
23 speak Spanish and it was relatives of the person who was
24 providing the description. Now, the problem is if you don't
25 speak the language, you don't know how accurate the

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1 A Review, evaluation, consultation, and so I think —
2 my billing rate is \$200 an hour after 35 years, so it's
3 probably — a fair amount of compensation would be somewhere
4 around four or \$5,000. But the amount allocated is only
5 3,000.
6 Q Okay. So —
7 A And, of course, I had to fly here back and forth
8 twice and so on.
9 Q Okay. So on this case at \$200 an hour, how many
10 hours total have you worked on this case?
11 A Oh, far in excess of anything I could bill for. At
12 least 30 hours.
13 Q Okay. Now, your hourly rate, does that include
14 hotel accommodations?
15 A No.
16 Q That's separate? That's another charge?
17 A That's correct.
18 Q Okay. What about travel accommodations?
19 A Exactly. Separate.
20 Q Now, I think under questioning from Mr. Mueller you
21 had said that you testified — I thought it was over 400
22 times. I'm not —
23 A It's in the hundreds of times. Three — it could
24 be over 400, it could be over 300. I've been doing this for
25 35 years, in 15 states and the Virgin Islands and all over.

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1 translation is so —
2 Q How many times did you speak to Karla Barboza?
3 A I haven't spoken to any witness or any police
4 officer in this case at all, nor would I even if I were given
5 access to them, because I'm not here to give any conclusory
6 statements about anybody being right or wrong.
7 Q Okay. And so how many times have you gone down to
8 the crime scene?
9 A I've never been at the crime scene, so far as I
10 know.
11 Q And so all of your information comes from the
12 reports the defense has provided you?
13 A That's correct.
14 Q And have you done a report in this case?
15 A I have not.
16 Q None at all in your over 30 hours, I think you said
17 you've worked on this case, a report was never —
18 A No. I don't do reports because I'm not here to
19 offer conclusions or opinions, not as if I'd analyzed the
20 angle of shots and determine that one bullet came this way
21 rather than that way and so on. So I'm not offering any
22 conclusion. I'm here simply to explain how the process works
23 and it's up to the jury to apply that to the case or not at
24 their choosing.
25 Q And you're also not here to determine whether the

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1 witnesses in this particular case made a proper
2 identification, right?

3 A Exactly.

4 Q As I just said, yes.

5 MS. PIEPER: Nothing else, Judge.

6 THE COURT: All right. Thank you. I had — well,
7 there's a — one of the juror's questions was asked by one of
8 the attorneys, but a juror wanted to know what experiments
9 have you done in this area and how were they conducted, if
10 any.

11 THE WITNESS: Certainly. My particular focus of
12 attention were on two kind of related but different areas.
13 One had to do with the perception of causality. That had to
14 do with a situation where two people work together side by
15 side, and it's actually too complicated to go into, but I
16 actually controlled the outcomes of what they were doing, but
17 they didn't realize it. And there were different kinds of
18 conditions I set up and then I asked each one their memory of
19 what occurred, what was responsive for this person's superior
20 performance, for example.

21 And they remembered it differently. They
22 remembered the reasons for this person doing well, how well
23 they did and so on. That was one basic kind of — my research
24 is called a perception of causality. What caused this
25 performance.

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1 basically — you do it the following way: First of all, is
2 there a large body of consistent peer reviewed research. That
3 would be one kind of tool of validation. Now, if it's one guy
4 in his laboratory, two guys, then clearly it's not the same
5 thing. Is there a large body of scientific information that
6 has been accepted in peer reviewed journals. Now —

7 THE COURT: I'm sorry to interrupt. I'll let you
8 finish, but some of the jurors may not know exactly what —
9 when you say "peer reviewed journal," what is that.

10 THE WITNESS: Certainly, Your Honor. I was going
11 to define it as something where the article gets accepted
12 based on the way it's done, not who did it. And you have a
13 body of colleagues who are reviewing this for publication.
14 And it's really tough.

15 I've reviewed for publication. I've had my things
16 reviewed for publication. And some gets in and some not based
17 on the quality of the research. So there's the size of the
18 scientific body, there's the number of peer reviewed journals,
19 and then, as a further test or validation, is it accepted in
20 the real world.

21 This is the same body of research the United States
22 Department of Justice depended on when it made its
23 recommendations. It's the same body of research the
24 California Commission on the Third Administration of Justice
25 depended on. And that's just not my opinion. They

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1 The next thing I got into much later on was because
2 I have a very extensive background in neurophysiology. I was
3 interested in the changes in brain activity when people were
4 observing different kinds of scenes. So — this was actually
5 back in the early '80s. So was it true, for example, that the
6 brain acted differently when people were exposed to very
7 complicated scenes that were very emotional or very
8 complicated scenes that were very pastoral.

9 Now, you had a control for complexity because the
10 brain also reacts differently: Complexity/simplicity. So I
11 was using scenes that had been previously judged to be equally
12 complex but some were very emotional overlaid, some were not.
13 I used very sensitive instruments measuring brain activity
14 called eight channel electroencephalographs made by a company
15 called Grass. And we actually pasted electrodes on people's
16 heads.

17 We showed them large numbers — and I didn't do it.
18 I had assistants do it so they weren't colored by my
19 hypothesis. And we got very, very distinctive patterns in
20 emotional activation and perceptual accuracy based on those
21 two kinds of conditions. So those were two major areas of
22 research, and I hope that's responsive to the question.

23 THE COURT: All right. Another juror question is,
24 has eyewitness and memory science been validated.

25 THE WITNESS: Yes. The key — validation is

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1 specifically recite the body of research, the same body of
2 research that's changed ID procedures in four states quoted by
3 the attorney generals in those four states.

4 So I think any fair test of validation would have
5 to indicate that it's passed the standards. This is not like
6 five dentists say this and five dentists say that. This is
7 really affecting the real world identification procedures that
8 the federal government and other state governments are using.
9 THE COURT: All right. And then I hope I'm asking
10 this question from a juror correctly. Is there any kind of
11 error rate that's been associated with eyewitness and memory
12 science?

13 THE WITNESS: Yes. There's two uses of that term
14 "error rate," interestingly enough. One has to do with a
15 standard for scientific testimony. A known error rate is a
16 term used in a very well known decision called Daubert, which
17 is how — what kind of testimony is scientific. So the first
18 issue is how your hypothesis is specified, can they be
19 falsified. And that's the way you set up a scientific
20 experiment, to falsify.

21 Error rate has to do with statistics. Is there an
22 appropriate use of statistics to not just give a questionnaire
23 but actually reject what's called the null hypothesis, meaning
24 there's no difference between these groups, that some kind of
25 level of that could be achieved by chance alone. That's what

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1 statistics does.

2 Now, in another use of the word error rate is,
3 okay, so how accurate are eyewitnesses. I mean, that's — it
4 turns out they're very inaccurate. It's the least accurate
5 means of identification we have. It's highly inaccurate.
6 It's not like recognizing friends of yours or people you've
7 known for a long time. Human beings are highly inaccurate
8 about recognizing strangers and even more inaccurate about
9 recognizing the actions of those strangers. So those are the
10 two aspects of error rate.

11 THE COURT: Have there been any studies done to
12 sort of assess that figure?

13 THE WITNESS: Oh, yes. In every study that I've
14 talked to you about, and there are literally thousands of
15 experiments, specifically an eyewitness identification, this
16 is not a small area. This is huge.

17 THE COURT: All right.

18 THE WITNESS: In that vast body —

19 THE COURT: I'm sorry.

20 THE WITNESS: I beg your pardon.

21 THE COURT: No, I interrupted you. I thought you
22 were done. I'm sorry.

23 THE WITNESS: Oh, I'm sorry. I'm very long winded.
24 I apologize. There's one more —

25 THE COURT: Are you sure you're not a lawyer?

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1 THE WITNESS: Well, I've been working with them so
2 long —

3 THE COURT: All right.

4 THE WITNESS: — it's hard to tell.

5 THE COURT: I'm sorry. Finish your answer.

6 THE WITNESS: The vast body of literature here
7 on — specifically on eyewitness identification is an outcome
8 of the last 50 years of research. Actually, I would say it
9 goes back even further, but for 50 years people have been
10 trying to figure out, well, how accurate is eyewitness
11 identification. And so you see all kinds of permutations.
12 Are men as good as identifying women? Are women as good as
13 identifying men? Are white people as good as identifying
14 African Americans or Caucasians? What effect does the
15 presence of a weapon have? How about the testing procedure,
16 the eyewitness ID procedure, should you show all the pictures
17 at the same time? Should you show them one at a time?

18 All of these things have been researched multiple,
19 dozens or perhaps even hundreds of times. So in all this body
20 of research which exists and is easily obtainable, there is a
21 study of how this actually works. This is not just somebody's
22 opinion. This is not some defense attorney's opinion,
23 prosecutor's opinion, police officer's opinion. These are
24 scientists who have no particular axe to grind.

25 THE COURT: All right. And then a juror wants to

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1 know, is this science, meaning the eyewitness and memory
2 science, subjective.

3 THE WITNESS: Well, everything in the world is
4 subjective in the sense that human beings are consuming it.
5 Nobody is objective. Everything you see right now is upside
6 down. All of you. Me, too. It's your brain that turns it
7 around.

8 Now, what's going on in your brain is affecting
9 what it is you're seeing right now and what you're paying
10 attention to. Whether you're reading the results of a
11 scientific journal, whether you're trying to understand some
12 experiment somebody tells you about or anything, it's all
13 subjective at that level.

14 Now, is it objective in the sense that it uses the
15 methods of science? The methods of science are stating your
16 hypothesis in ways that they can be found to be false. If
17 somebody says, well, you know, I have a scientific experiment
18 that says there is no deity, that's nonsense. Somebody like
19 that is lying. There is no definitive experiment such that
20 you could put a hypothesis that would either prove or disprove
21 that point. So that's not scientific.

22 Science has to include the methodology. The
23 methodology has to be the way you state your hypothesis, the
24 appropriate use of statistics and replicability. You come out
25 with a result, if 100 other people know your methodology can

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1 come out with the same result, now you've got science.

2 THE COURT: So, in other words, if you propose a
3 test to test a hypothesis, the idea is that if a hundred other
4 scientists perform the same test, their results should be
5 essentially the same?

6 THE WITNESS: Exactly.

7 THE COURT: All right. And then a juror wants to
8 know, what is your opinion as to why you're not used as a
9 witness by the State?

10 MS. PIEPER: What was the question?

11 THE COURT: They wanted to know —

12 MR. HENDRICKS: And, Judge —

13 THE COURT: You know, I —

14 MR. HENDRICKS: I don't think that's an appropriate
15 question. We'd object —

16 THE COURT: I'll see counsel up at the bench.

17 (off-record bench conference.)

18 THE COURT: All right. Mr. Mueller, you said you
19 have a brief redirect.

20 MR. MUELLER: Just two or three questions actually,
21 Your Honor.

22 REDIRECT EXAMINATION

23 BY MR. MUELLER:

24 Q Sir, my colleague asked you about your payment for
25 your services, correct?

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1 A Yes.
2 Q And you reported that you were using -- you had
3 billed approximately about 30 hours, which you said --
4 A Well, I haven't billed it yet. I'm just
5 accumulating it for some potential prospect of being paid.
6 Q Fair enough, sir. But the fact of the matter is
7 your testimony here is right off the shelf. This is the stuff
8 you already know. I mean, I'm not asking you any particular
9 questions about this case?
10 A That's fair.
11 Q All right. This 30 hours went into another
12 project, did it not?
13 A It did.
14 Q And what was that, sir?
15 A Well, in order to make sense of this, I had to
16 enhance the video surveillance tapes.
17 MS. PIEPER: Judge, I'm going to object. For the
18 record, since we already --
19 MR. HENDRICKS: Judge, may we approach?
20 MS. PIEPER: -- discussed this --
21 THE COURT: Yeah.
22 (Off-record bench conference.)
23 THE COURT: All right. Doctor, would it be fair --
24 THE WITNESS: Yes, Your Honor.
25 THE COURT: -- that at the request of defense

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1 counsel you spent time doing other things, looking at the
2 videotape and working with that and other things that you have
3 not been asked to -- or that you were not testifying about
4 today?
5 THE WITNESS: I think that is accurate, Your Honor.
6 THE COURT: All right. Thank you. So the 30 hours
7 was spent working on matters relating to this case, but was
8 not actually covered in the testimony that you've given?
9 THE WITNESS: Correct.
10 BY MR. MUELLER:
11 Q Sir, one other miscellaneous point. I mentioned
12 about -- I asked you on direct examination about alcohol and
13 intoxication. Generally, morphine, a painkiller?
14 A Yes, there have been specific studies on the
15 effects of perception of painkillers. The basic issue is that
16 they change the intake receptivity of the brain which you can
17 understand is highly functional because you don't want the
18 pain signals to be getting to the brain interpreted as pain.
19 They actually travel up the spinal cord, they get to the
20 brain, but they are not interpreted as pain. That's what
21 morphine does. So morphine changes the general nature of the
22 perception of incoming information, including visual
23 information, and people under morphine are very, very
24 suggestive and highly vulnerable to suggestivity the studies
25 have shown.

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1 Q What is suggestivity?
2 A Suggestivity is basically theories, hypotheses,
3 ideas, information of other people, can be incorporated into
4 one's own memory of a situation under the affects of morphine
5 far more readily than if an individual is not on the defects.
6 MR. MUELLER: Nothing further.
7 THE COURT: Anything else by the State?
8 MS. PIEPER: Just a couple of questions, Judge.
9 RE-CROSS-EXAMINATION
10 BY MS. PIEPER:
11 Q So just to be clear, you didn't run any test on
12 Karla Barboza?
13 A Correct.
14 Q You didn't do any test on Eric Casimiro?
15 A Correct.
16 Q You've never done a test on Humberto Beserra?
17 A Correct.
18 Q You've never done a test on Sergio Rios?
19 A Correct.
20 Q You've never done a test on Edgar Rios?
21 A Correct.
22 Q And I think one of the things you testified also
23 had to do with the witnesses or people who are going to make
24 identifications coming forward sooner, the closer in time to
25 the event happening, the better, the higher the accuracy?

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1 A Well, yeah, I didn't say anything about coming
2 forward or being approached.
3 Q Well --
4 A It was simply the time interval.
5 Q But getting the information --
6 A Sooner, yes.
7 Q So witnesses who come forward ten to 11 days after
8 an event has happened and that's the first time we ever get
9 their information from them and they say who they saw the
10 shooter was, that information wouldn't be as accurate as if we
11 had people that came forward, let's say, within two or three
12 hours after the shooting?
13 A Well, sure. And they would be more accurate than
14 people who came forward three months later or four months or
15 eight months later.
16 Q So the closer in time to the event that the witness
17 is -- or whoever's testimony we're getting come forward, the
18 more accurate they are?
19 A That would be a factor, yes, definitely.
20 Q And also the relationship to the parties. So if
21 somebody comes forward 11 days after an event and knows, say,
22 one of the people involved, their testimony may not be as
23 accurate or their identification may not be as accurate as
24 somebody who was, let's say, giving their eyewitness
25 identification within four hours of the event happening?

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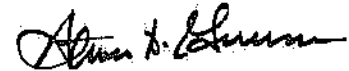
EXHIBIT B

Mr. Shaygan to prepare the order, DEFENDANT'S MOTION TO COMPEL DISCLOSURE OF BRADY MATERIAL Mr. Shaygan stated that he did a file review with Mr. Giles, and there is no outstanding Discovery that he is aware of. Mr. Giles advised they have given any Discovery available pursuant to Brady and Giglio. COURT STATED the State is not required to calculate witness fees, it is the States obligation to disclose witness fees if they are above and beyond the standard \$25.00 per appearance, for travel or other purposes, however, there are no out of state witnesses. COURT FURTHER STATED the rest of the points in the motion appear to be moot, as a file review was conducted and there is nothing outstanding. COURT ORDERED, Motion GRANTED as to exculpatory evidence, inconsistent statements, and any enumeration of witnesses above and beyond the \$25.00 witness fee. Upon Court's inquiry, Mr. Shaygan stated there is nothing specific related to media that he is aware of. COURT DIRECTED Mr. Giles to run NCIC on the two lay witnesses by Monday at 1:30 PM. DEFENDANT'S MOTION TO SUPPRESS SUGGESTIVE PHOTOGRAPHIC LINE-UP Exhibits presented. (See Worksheet). COURT ORDERED, Evidentiary Hearing SET, outside the presence of the Jury, for testimony of the witness under oath regarding the line-up. CUSTODY 8/1/16 1:00 PM EVIDENTIARY HEARING

Parties Present

Return to Register of Actions

EXHIBIT C



CLERK OF THE COURT

TRAN

DISTRICT COURT
CLARK COUNTY, NEVADA
* * * * *

THE STATE OF NEVADA,
Plaintiff,
vs.
EMONE JAMES,
Defendant..

CASE NO. C303733-1
DEPT NO. III

**TRANSCRIPT OF
PROCEEDINGS**

BEFORE THE HONORABLE DOUGLAS W. HERNDON, DISTRICT COURT JUDGE

JURY TRIAL - DAY 6

MONDAY, MARCH 7, 2016

APPEARANCES:

For the State:

MICHELLE FLECK, ESQ.
Chief Deputy District Attorney
JOHN L. GIORDANI, III, ESQ.
Deputy District Attorney

For the Defendant:

MARTIN HART, ESQ.

RECORDED BY: SARA RICHARDSON, COURT RECORDER
TRANSCRIBED BY: JD REPORTING, INC.

I N D E X

WITNESSES FOR THE STATE:

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MICHAEL JOHNSON

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Cross-Examination by Mr. Hart 34

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WITNESSES FOR THE DEFENSE:

ROBERT SHOMER

Direct Examination by Mr. Hart 103

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1 William, W-i-l-l-i-a-m. Shomer, S-h-o-m-e-r.

2 THE COURT: All right, sir. Thank you.

3 Mr. Hart.

4 DIRECT EXAMINATION

5 BY MR. HART:

6 Q Dr. Shomer.

7 A Yes, sir.

8 Q Have you ever qualified or testified as an expert
9 witness on the factors involved in perception, memory and
10 eyewitness identification?

11 A Yes, I have.

12 Q Okay. And approximately how many times?

13 A Well, I started in 1974, which was long ago. So I've
14 qualified and testified as an expert witness in those areas
15 probably in excess of a thousand times. Most of my appearances
16 are in California, but I've testified here in Nevada maybe a
17 dozen times in the past and all over the United States in about
18 23 other states.

19 Q Okay. And have you specifically testified and been
20 certified as an expert here in Clark County, Nevada?

21 A Yes, I have, several times.

22 Q Okay. What is your academic background training that
23 makes you able to provide this kind of expertise?

24 A This is an area of research psychology or
25 experimentation on human beings. How well, you know, can

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1 people identify each other? What are the various perceptual
2 effects? How do you test whether somebody can make an ID, an
3 accurate ID or not? These are all questions of research
4 psychology. My bachelor's degree was from UCLA in experimental
5 psychology or research psychology.

6 I was then accepted to the doctorate program in
7 experimental psychology. It took five years. During that time
8 I taught for UCLA, which back in my day was kind of unusual. I
9 also published research in peer-reviewed journals while still a
10 graduate student and assisted others and other faculty members
11 in their research, and did my own independent piece of research
12 called a doctoral dissertation. I did that, defended it and
13 was awarded the doctorate in research or experimental
14 psychology in the areas of perception and memory.

15 I was then offered a number of faculty appointments
16 including offers from places like Carnegie Mellon and Dartmouth
17 and University of Texas, Harvard and Yale. I accepted an
18 unusual position at Harvard University where I was an assistant
19 professor of psychology in three departments at the same time.
20 I taught in that position for five years, did a lot of work for
21 the government, the Advanced Research Projects Agency
22 specifically. I did a lot of work for the office of the Navy.
23 They sent me to Antarctica a couple times to work on projects
24 having to do with stress.

25 I taught both on the campus and off campus to

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1 military personnel. I did a number of research projects while
2 there and mentored and supervised the doctoral dissertations of
3 graduate students. After five years of doing that I returned
4 to the west coast where I was given a tenured professorship at
5 the Claremont Colleges. It's a group of colleges outside of
6 LA, about 50 miles outside in an area called Pomona, if
7 anybody's familiar with that. I served in that capacity for 10
8 years. I taught at the graduate school, Claremont graduate
9 school and the undergraduate colleges. I built the
10 experimental laboratory for the undergraduate colleges.

11 And while there I first qualified and testified as an
12 expert in eyewitness identification. I continued to do that
13 while I was still in academia.

14 I left academia after a cumulative 15 years, joined a
15 medical group in the Hawthorne area. I got introduced to the
16 group because I was a screening psychologist for the Hawthorne
17 Police Department, did that for a number of years and left
18 academia, joined the medical group, became the president and
19 CEO of the largest medical group in Los Angeles County. We had
20 about a hundred thousand patients and a hundred physicians in
21 ten offices. So I served in that capacity for three terms,
22 continued qualifying and testifying as an expert in eyewitness
23 identification.

24 After our medical group, which was very large, was
25 absorbed by an even larger group, I left the medical group and

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1 continued to qualify and testify as an expert in eyewitness
2 identification all over the country. As I said, I've qualified
3 and testified in about 23 states, and I've been doing it for a
4 number of decades now.

5 Q Okay. So when did you first qualify as an expert?

6 A 1974 in San Bernardino.

7 Q Okay. I thought you said that, but I --

8 A Yeah.

9 Q Okay. And to be clear, you don't do this for free,
10 right?

11 A No, I don't. I have done cases what they call pro
12 bono for the good of the system, but I would say 99 percent of
13 the time I do get paid for my time, and I'm getting paid for my
14 time in this case.

15 Q Okay. And I contacted you some months ago about
16 possibly being a witness in this, correct?

17 A You did back before August of last year.

18 Q Okay. And you agreed to testify based on what I gave
19 you or the information I had provided you?

20 A I agreed that the testimony would be relevant and
21 told you so, and then you sent me bunches of information, and
22 my opinion has remained the same.

23 Q Okay. Do you --

24 MR. GIORDANI: Objection, Judge, as to whether his
25 testimony would be relevant. That's for the jury to decide.

1 THE COURT: Well, Mr. Hart, why don't you rephrase it
2 if you would.

3 BY MR. HART:

4 Q Okay. Do you agree -- do you testify for everybody
5 that contacts you?

6 A No, I don't. I tell them up front maybe 30 percent
7 of the time I don't think the testimony would be useful or
8 appropriate or relevant.

9 Q Okay. So you said you've worked with law
10 enforcement?

11 A Yes, I have. I've provided training for police
12 departments both nationally and internationally on eyewitness
13 identification procedures. I last did that for the police
14 department in the city of Leon, Mexico, which is the second
15 largest city in Mexico. I've also addressed audiences of
16 prosecutors and judges in various venues. I've addressed the
17 California State Bar Association and bar associations in many
18 states.

19 Q Okay. Have you ever testified for the prosecution?

20 A Not so far. They haven't asked me to, and I have not
21 testified for them.

22 Q Would you have a problem with that?

23 A Not at all. I'd put it through the same kind of
24 filtering process I would for a defense request, but other than
25 that I have no problem with it at all.

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1 Q Okay. And when you talk about what eyewitness
2 identification and how it works, you use the term factors, I
3 believe?

4 A That's exactly correct. I'm not here to substitute
5 my opinion as to whether anybody's right or wrong. I'm here to
6 talk about the various factors that go into this process we've
7 heard of called eyewitness identification and discuss how the
8 research which is very voluminous has found it to work.

9 Q Okay. Have you gone to the scene for this?

10 A Absolutely not.

11 Q Have you -- okay. And have you interviewed any of
12 the witnesses on this?

13 A I have not interviewed anyone involved in this case
14 or tested them or in any way tried to find out how their minds
15 work.

16 Q Okay. And why is that?

17 A Well, once again because I'm here simply to provide
18 information -- you can think of it as tools if you will -- for
19 the jurors to use if they choose to in their evaluation of the
20 accuracy of the eyewitness identification, not to substitute my
21 opinion as to whether anybody's right or wrong, but to simply
22 provide information about how these things work. So I'm not
23 going to examine the witnesses and wave some magic
24 psychological wand over their head to determine whether they're
25 telling the truth or not or whether they're correct or not.

1 So I don't go to the scene. I don't interview the
2 witnesses. I don't come to any conclusion as to, you know,
3 what they saw, what they were attending to, what they're
4 actually doing. I'm providing information for the juror to
5 use -- jurors to use if they want to in evaluating how these
6 various things work in terms of the witnesses saying one thing
7 or another or arriving at an ID or not.

8 Q Okay. And you said you did a doctoral thesis. Was
9 that on eyewitness identification?

10 A No, it wasn't on -- well, you see, eyewitness ID
11 requires perception. So my work has been in the area of
12 perception, perceiving things, perceiving other people. So we
13 didn't use the title eyewitness identification, but it's
14 certainly, you know, an essential part of eyewitness
15 identification. So it involved the processes of eyewitness
16 identification without using the term eyewitness identification
17 because it's procedure. You can't make an ID unless you
18 perceive somebody.

19 Q Okay. Is your testimony today going to be based on
20 your experimentations and knowledge or program -- I want to
21 throw that question out and kill it.

22 Are you going to be testifying as to what your own
23 experiences -- experiments, scientific experiments have shown
24 or that of others?

25 A No. I test -- I leave what I've done out. I do that.

1 purposely. You can become very close to your own research. I
2 don't think, you know, you can be very neutral about it. It's
3 not easy to do research. You become close to it.

4 I depend on a very, very large body. I'm talking
5 about 3,000 or more specific scientific studies in this area
6 done by others that I have not only reviewed sometimes for a
7 vocation in journals, sometimes debated at national and
8 international congresses of psychology, but these are studies
9 that I have taught, learned about, reviewed, debated with the
10 authors and know pretty well.

11 So I don't include my own research. I don't think
12 it's appropriate. I rest my testimony on a very large body of
13 specific scientific research done by, frankly, hundreds of
14 researchers all over the country and in about five other
15 countries as well.

16 Q And these are peer reviewed?

17 A Yes.

18 Q Okay. What do we mean by peer reviewed?

19 A Well, a peer-reviewed publication basically means
20 that an individual submits an article for publication. It is
21 evaluated in a blind fashion. That is it's sent to a
22 committee —

23 THE COURT: Hold on one second.

24 THE WITNESS: I'm sorry.

25 THE COURT: Well, I heard a phone ringing.

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1 MR. HART: Is that your phone ringing?

2 THE COURT: I don't know whose it was.

3 THE WITNESS: It's my watch, Your Honor.

4 THE COURT: Oh, okay.

5 THE WITNESS: I apologize. I shut off my phone, but
6 I don't know --

7 THE COURT: That's okay. Thank you.

8 THE WITNESS: Forgive me. I apologize.

9 In order to be accepted for publication it first has
10 to be evaluated by a large body of researchers working in the
11 area, but they do it in a blind fashion. What that simply
12 means is it's a way to prevent, you know, a kind of old-boy,
13 old-girl network of publishing each other's work. So you don't
14 know who did the research, and you evaluate it that way, and
15 your peers, in other words, you work in the same area as the
16 author of the work. So that's what is meant by peer review.
17 It's a quality control mechanism so you can comment honestly
18 and appropriately about the limitations or advantages of the
19 research without worrying about offending a particular person
20 or any of the, you know, reputational issues.

21 BY MR. HART:

22 Q Okay. You said it's a large body, five countries or
23 whatever. Are the authorities generally in agreement, or is
24 this kind of a -- you have one side, and you have the other
25 side as to --

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1 A Yeah, like five dentists say this, and four dentists
2 say that. No, not at all. This is an area of research in
3 which the findings have been so consistent that it's led to
4 specific changes in police policy here in Nevada and as well in
5 many other states. So the reason that there is something
6 called a double-blind procedure, the reason there is something
7 called a sequential presentation, the reason there is a balance
8 admonition is all of these things come right out of that
9 research.

10 And the people who have made those changes in law
11 enforcement actually -- you know, they acknowledge that the
12 source of the reason they're changing comes out of the same
13 body of research. So the results are extremely consistent.
14 Their consistency has been noted by the United States
15 Department of Justice, the American Bar Association and various
16 Supreme Courts and states that have said, okay, we're going to
17 do it this way now because of this body of research.

18 So this is very, very -- there's a tremendous amount
19 of consistency in the findings of what eyewitness ID is, how
20 difficult it is. What are the various ways you go about
21 obtaining an ID? All of those things have very, very
22 consistent scientific research backing up the generalizations
23 that I'll talk about.

24 Q Okay. And when you're saying consisting, you're not
25 saying that the procedures used by everybody is consistent, but

1 the findings scientifically as to biases or, et cetera, is
2 consistent, correct?

3 A Right. The findings are very consistent.
4 Unfortunately, the implementation of those findings depends on
5 providing training for the police officers on how to do these
6 changes, and that's the weak part because often a policy comes
7 down, do it this way, and they don't really explain to the
8 officers why, what the advantages are, how to do it, what --
9 you know, when to do it, and as a result, good honest
10 well-meaning professional police officers are sometimes very
11 confused about what these various procedures are for and why
12 there are advantages with one as opposed to another. So the
13 implementation is the weak part.

14 The fact that they want to make these changes is a
15 good sign. Now we have to go around providing training, and,
16 you know, budgets are strapped, and law enforcement has lots of
17 things on its plate, but hopefully eventually officers will
18 understand all of the ins and outs of doing these various
19 procedures that have now been recommended.

20 Q And the National Academy of Sciences, is that one of
21 the organizations? Is it one of --

22 A The National Academy of Sciences is one of the
23 organizations that has strongly, and I mean strongly endorsed
24 what's called a double-blind procedure. It's a fancy term, and
25 it's kind of confusing, but it basically means that the person

1 administering a procedure -- let's say an identification
2 procedure -- should not know whether or not the police suspect
3 is in that set of photographs that they're showing the witness
4 and of course not know which position that person is in.
5 That's what's called double-blind.

6 It's the way all important testing is done in
7 medicine. You never see a researcher handing out, you know,
8 the sugar pill and the medicine and knowing which one is which.
9 They're kept blind about which one is which, not because we
10 don't trust them and not because we don't trust police
11 officers. It's because having that knowledge can actually
12 influence the behavior of either the person taking the
13 medication or the witness trying to make an identification.

14 The expectations of the experimenter, police officer
15 or medical researcher can easily be communicated without the
16 person knowing they're being communicated and can influence the
17 witness without the witness realizing they've been influenced.
18 So that's why the American Academy of Science, which turns out
19 to be -- it started in the Civil War I was surprised to find --
20 as a premier body of scientists in the country, and they have
21 endorsed the double-blind procedure and recommended it very,
22 very strongly as a way of trying to get accurate eyewitness
23 identification.

24 Q Okay. And it's also been the Department of Justice
25 you said too, correct?

1 A I'm sorry?

2 Q The Department of Justice?

3 A Well, the United States Department of Justice is also
4 one of those agencies that has strongly endorsed the
5 double-blind procedure.

6 Q Okay. So what major factors in identification have
7 been established by the research that these various agencies
8 are suggesting proposing or pushing for?

9 A Sure.

10 Q I don't know. What term do you want to use?

11 A Well, that's fine. I think that communicates what
12 the area is about. The first and foremost is that we're not
13 cameras. We don't go around taking objective pictures of
14 things and storing them up in our head, either stills or
15 videotape or something like that. That's not the way it works.
16 It's much more complicated.

17 Identification takes place in the brain, not in the
18 eyes. So it's not easy to be accurate about eyewitness
19 identification of strangers, and the major reason for that is
20 many, many people resemble each other so that that major factor
21 of resemblance causes tremendous errors in attempting to
22 identify strangers.

23 Then the next issue is that the time interval between
24 your exposure to an individual and then your attempt to
25 identify who that individual is, is absolutely critical because

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1 if it were a film, the film wouldn't deteriorate. It would
2 just be there for a long time, but memories deteriorate very,
3 very quickly. And so there's been specific research on how
4 long those memories are good for and how long they remain
5 accurate. It turns out there's a major loss of accuracy within
6 24 hours of the observation. So it's a relatively short time.

7 Now, that does not mean it's impossible to make an
8 accurate ID sometime after. It just means there's more and
9 more potential for error when you get to weeks and months and
10 years, and those time intervals have been checked on with
11 respect to accuracy of identification, and with increasing
12 amounts of time the accuracy of identification of strangers,
13 and we're talking about strangers; they're not people you know.

14 I mean, you can go back to your high school reunion
15 and recognize people. You know them very well. You haven't
16 seen them for 10 years but you recognize them. That's not
17 identification of strangers, a completely different process.
18 So the accurate recognition of strangers, the accuracy for that
19 diminishes very quickly with time and gets down to chance
20 levels or below with anything over a few months.

21 Then of course since we're dealing with evidence that
22 does not exist out there in the real world, like a fingerprint
23 or biological sample, eyewitness ID exists only in the mind of
24 the witness. It has no independent existence. So when you're
25 testing whether or not somebody can make an ID, it's not too

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1 far-fetched to say you're trying to read their mind. I mean,
2 you're really trying to figure out what's in their mind. Now,
3 that takes testing that will try to tap what that is without
4 affecting the evidence because the evidence is only up there in
5 the mind.

6 And that testing is what you call an eyewitness ID
7 procedure, and that's where all these issues of sequential and
8 simultaneous and double-blind come in because if you are
9 affecting the evidence when you're testing it, you're really
10 working against yourself. So you want to have a procedure that
11 can validly test what's in that witness's mind without
12 influencing that evidence, and that's not an easy thing to do
13 it turns out.

14 And then the next thing and the last thing I'll say
15 is that one of the other major findings in this area is that
16 the confidence of the eyewitness does not bear a good
17 relationship to how accurate that witness is in their
18 eyewitness identification. The only time that confidence
19 really is associated with accuracy is if the procedure were
20 done in a very specified way, a double-blind with the
21 appropriate admonitions and a strong choice on the part of the
22 witness -- I think it's No. 5 or something like that -- at that
23 point in time if you asked the witness how certain they are,
24 that certainty bears a good relationship with that
25 identification. But anything else, if the witness says I'm

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1 sure, unfortunately there's no way you can predict from that
2 whether or not they're accurate.

3 And with increasing time, the research shows, people
4 get more and more confident and the contents of their memory
5 are getting less and less accurate.

6 Q Okay. So time you said within 24 hours is one of the
7 major factors?

8 A Absolutely.

9 Q Okay. And you said it drops off?

10 A Drops off very quickly and stays down and more and
11 more loss over time.

12 Q Okay. So when -- I guess you said within 24 hours is
13 the best. Is there like a breakdown into different sections,
14 like a week later, a month later? Is it a geometric
15 progression, or --

16 A No, it's --

17 Q -- is there any actual --

18 A Yeah. No, it's not. You can't easily sum it up in
19 some kind of formula. There's a continuing decay in accuracy,
20 not at the same rate as within the first 24 hours, but at a
21 much slower rate but a continuing decline. There is no point
22 along this time axis where it turns around and you get more
23 accurate. You get continuing decay of accuracy with increasing
24 time.

25 Q And some of the studies that have shown this, have

1 they gone through old cases and figured out how bad IDs came
2 through? Is that part of the --

3 A Well, that's part of it, and there's a whole, you
4 know, investigation of what are called DNA exonerations where
5 they find why was it that someone who was not the one who did
6 the crime was actually identified as the person who did the
7 crime, and they look at time intervals and things like that.

8 But the research that I think is most convincing is
9 where they actually expose people to the faces of various
10 individuals under a lot of different conditions, and they
11 actually go back at time intervals and check on their ability
12 to identify. So it's an actual real passage of time in a
13 situation where they have had witnesses exposed to faces under
14 a variety of conditions.

15 Q Okay. Now, what about lighting and distance; is that
16 a big part of it or --

17 A Well, again, while we're not cameras, we need enough
18 light to see somebody. So you say, well, okay, you have good
19 lighting. Well, isn't that enough to have an accurate ID? And
20 the answer is no. Well, what about distance? I mean, if
21 somebody's a block away, it's a lot harder to make an accurate
22 ID than if they're, you know, 10 or 15 feet away, true. Well,
23 if they're 10, 15 feet away, is that enough for an accurate ID?
24 And the answer is no.

25 What about the amount of time? Well, time's a funny

1 one because it's really not the passage of clock time. It's
2 the focus of attention, what you're looking at because you can
3 be with somebody for a long time and not really look at them.
4 In experiments where they've actually been able to use eye
5 movement tracking cameras to tell what people are looking at,
6 they find no relationship between the passage of time and more
7 accurate ID. So now you have good lighting, adequate distance,
8 adequate duration, and you say, well, unfortunately those are
9 necessary but not sufficient.

10 In other words, if you don't have them, you can't see
11 anything. You know, in a dark room you're not going to be able
12 to make an ID. Half a block away you can't make an ID. Split
13 second, maybe you can make an ID, but it would be very
14 difficult. So these things are necessary for a good ID, but
15 just having them is not sufficient to create an accurate ID
16 because ID is in the brain not in the eyes.

17 And we're not just dealing with a camera here taking
18 a good picture. We're dealing with human beings who are maybe
19 focused on, you know, what's going on, you know. Is anybody
20 going to interrupt this, what's this guy doing and that guy
21 doing and what else is going on and all kinds of diversions of
22 their attention.

23 Q Okay. What about stress, the idea that I'll never
24 forget that face because of this, is that a --

25 A It's a very common belief. One of the nice things

1 about this body of research is it puts to rest a lot of these
2 common beliefs about eyewitness ID. You know, I'm very good
3 with faces, that kind of thing. It turns out when you
4 investigate it, it's somebody who, you know, is -- they can
5 tell all their customers when they come back, you know,
6 familiar faces they see over and over again.

7 Strangers, that's a whole different thing. So with
8 respect to stress, people say, well, good stress stamps in. It
9 does, but it doesn't work for accuracy. In other words, you
10 may never forget you were in that situation because of the
11 stress involved, but it turns out it actually is very, very
12 counterproductive to accuracy and identification.

13 So the stress actually interferes with the accuracy
14 of forming perceptions which you have to do if you're going to
15 identify somebody, and then converting those perceptions into
16 an accurate memory, which is also necessary if you're ever
17 going to identify somebody. So stress interferes with both of
18 those very complicated processes and makes the accuracy rate
19 plummet.

20 Q You're not saying that somebody can't identify
21 somebody based on stress or time or anything, correct?

22 A That's correct. I'm not saying you can't make an
23 accurate identification period because of any one factor, that
24 in fact accurate identifications occur all the time. They
25 occur in situations where there's a long, you know, focus of

1 attention on an individual, or afterwards due to that focus of
2 attention the witness comes up with a very accurate, detailed
3 description of that person where there's not too much time
4 between the event and the ID test, the procedure, where the
5 procedure is done in a very appropriate manner that doesn't
6 communicate any of the expectations of the police or otherwise
7 influence the evidence.

8 Under those kinds of conditions yes, you can make an
9 accurate identification, and they do occur. So inaccuracy,
10 accuracy, it's a kind of a continuum, and you just have to
11 think of all the various factors that can move it toward
12 accuracy and those that can move it toward inaccuracy.

13 Q How important is having a good strong description
14 initially before any lineups are done or anything like that for
15 the accuracy?

16 A It's critical. It's a critical benchmark. The
17 reason it's so critical is many, many people resemble each
18 other, and the way you tell one person that looks like another
19 person, that you can tell them apart, is the detail in the
20 description. That can separate two similar looking people, but
21 if you don't have that detail, first of all it may be that the
22 person really wasn't paying attention. They weren't focused on
23 any people. That's one possibility.

24 The second thing is that, you know, they just didn't
25 come up with any specific detail in their description that

1 would help them later on when looking at a set of pictures or
2 people pick out the specific person that they think was the one
3 that they saw. So an initial description is really a critical
4 benchmark, a measuring stick, I guess you'd call it, against
5 which you can evaluate the identification.

6 Q Okay. And we talked about how it all works. What
7 exactly is an eyewitness identification?

8 A That's a very important question because we use the
9 term identify in lots of different contexts, you know.
10 So-and-so identified this person as a 6-foot tall Asian male or
11 something, and, you know, we use that kind of language all the
12 time. There's nothing really wrong with it except it's
13 confusing.

14 So eyewitness identification is a demonstrated
15 ability, not a guess, not an assumption but a demonstrated
16 ability to pick out the very same person you saw before in the
17 context of a fair test of that ability, and I'm not implying
18 anybody's trying to be unfair. I'm saying fair as a -- you
19 know, a fair indication of what's in that witness's mind.

20 So, for example, you want to know my jumping ability.
21 You don't want me wearing spring-loaded shoes. That would not
22 be a fair test. You want to know what my jumping ability is
23 not aided by anything or not, you know, suggested by anything.
24 So eyewitness ID is a demonstrated ability, demonstrated in a
25 fair test.

1 Q Okay. Have you come up with a determined best
2 practices program for doing photo -- or an identification -- I
3 should -- an identification of whatever kind of eyewitness
4 identification is?

5 A Sure. I haven't come up with these practices but
6 they make all the sense in the world, and they've been come up
7 with -- people that have come up with them are the American Bar
8 Association, the United States Department of Justice, the, you
9 know, National Academy of Science. They're the ones that have
10 come up with these guidelines of procedural guidelines to get
11 accurate identifications.

12 Q Okay. What is the first --

13 A Well, first and foremost is that the individual who
14 knows which one is the person who is the suspect should not be
15 the individual administering the procedure. Again, not because
16 we don't trust them, but because the influence, the attitude of
17 the person running the procedure can easily influence the
18 witness without either party really being aware of it. There's
19 an entire stream of research called experimenter expectancy
20 that confirms this beyond any doubt. It's all done by a
21 colleague of mine from Harvard by the name of Robert Rosenthal.
22 He teaches at UC Riverside.

23 This is the one key guideline, double-blind. The
24 second key guideline is it turns out you have more accuracy if
25 witnesses do not compare one photograph to another. That kind

1 of comparison shopping is associated with more inaccurate
2 identifications than accurate identifications. So the best way
3 to do it is to have someone who doesn't know which one is the
4 police suspect, and the witness gets to look at them, it'll be
5 one photograph at a time and not to compare them with each
6 other.

7 There are a few other things, like no one photo
8 should stick out like a sore thumb. The admonition should say
9 it's just as important to clear the innocent as to identify the
10 guilty. The measure of confidence of that witness should be
11 asked and obtained right after the witness does the
12 identification procedure, whether they make a -- well, if they
13 don't make a choice, then there's no point in asking it, but if
14 they make a choice, they say, well, it's No. 6. Okay, please
15 indicate on this scale and use a standardized scale so
16 everybody's answers can be compared with each other, you know,
17 how certain are you, and that measure of confidence is very
18 important to get then and there because later on, as I said, it
19 changes.

20 Q What about videotaping of the program or anything
21 else?

22 A Absolutely. The entire procedure should be
23 videotaped from the beginning, again not because we don't trust
24 anybody, but because it protects the police officer and the
25 witness; otherwise, all you have is imperfect memory as to what

1 happened and what people said.

2 Q Okay. You said you asked for the percentage as soon
3 as it's made. What if you get a looks like, but they don't
4 necessarily identify? Does that make --

5 A Yeah. I mean, that's not an identification. That's
6 a statement of resemblance. So if somebody says, well,
7 so-and-so, you know, I'm 30 percent sure. I'm 50 percent sure.
8 I'm 60 percent sure, all of those are probabilities about
9 similarity, but they're not an identification. Identification
10 is that's the guy. How certain are you? A hundred percent
11 that's the guy. That's an identification.

12 These others are statements of resemblance. They may
13 not use that word. It looks like, you know, is a resemblance.
14 This looks like the person. Well, the major source of error in
15 eyewitness identification is many people look like each other,
16 especially with respect to strangers.

17 Q Okay. Well, what about if the answer is positive
18 looks just like him?

19 A Yes, that would be an identification. That's what
20 you want. You want an identification of a particular person
21 without any kind of equivocation or, you know, well, looks
22 like, I'm not sure. I'm only a certain percent certain.

23 Q Okay. So I'm going to give you a hypothetical on
24 this. We have an event, and the same day a witness picks
25 somebody out of a six-pack and says positive that looks just

1 like him, and then 24 hours later the same witness picks
2 another individual and says they look like that person, being
3 the same person, and then one month after the event or
4 thereabouts they pick a third person and say they're 50 percent
5 sure, and then about 14 months later they pick another
6 individual, says they're 60 percent sure. How would that
7 hypothetical -- how would you address that with your factors?

8 MR. GIORDANI: Objection, Judge. That's an
9 inappropriate hypothetical.

10 MR. HART: Your Honor, it's a pretty darn accurate
11 hypothetical.

12 MR. GIORDANI: Well, that's actually not.

13 THE COURT: Well, I mean, it's --

14 MR. GIORDANI: It's also inappropriate.

15 THE COURT: -- it's necessarily incomplete, and I
16 don't know that it could ever be complete basically. So, I
17 mean, you can attempt to rephrase it in some fashion if you
18 want.

19 BY MR. HART:

20 Q Okay. We'll just start with two of them. If within
21 24 hours -- well, less than 24 hours after the event you pick
22 somebody out and say I'm positive looks just like him and then
23 14 months later picks somebody out says 50 -- 60 percent sure,
24 how would that hypothetical --

25 MR. GIORDANI: Objection. Same objection.

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1 THE COURT: Well, why don't you approach the bench.

2 (Conference at the bench begins.)

3 MR. HART: Your Honor --

4 THE COURT: Hold on. The problem is, I mean, the
5 guys have never interviewed anybody, talked with anybody. I
6 don't know what they mean when they say looks like or what
7 their percentages are and things like that, but you're asking
8 him to comment on the validity of their identification, which
9 is generally what he said he's not here to do.

10 MR. HART: No. I'm asking how the factors would
11 play.

12 THE COURT: Okay.

13 MR. HART: I'm not asking him to say would it be
14 right or wrong.

15 THE COURT: Okay.

16 MR. HART: I'm asking how the factors would work on
17 this, and that is a --

18 THE COURT: Well, what do you mean how the factors
19 would work? Maybe I'm not understanding.

20 MR. HART: Well, part of it is to determine if there
21 is a potential for accuracy or not, how this would affect
22 accuracy --

23 MS. FLECK: (Unintelligible) --

24 MR. HART: -- not that he's got the wrong guy.

25 MS. FLECK: -- factors (unintelligible) and we're

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1 done with him.

2 THE COURT: But that will, A, saying this is how it
3 would affect his accuracy is commenting on his identification
4 in a way that I think is inappropriate, but I'm not -- I still
5 don't understand what you mean by how the factors would affect
6 this.

7 MR. HART: I'm just asking -- I'm giving what the
8 procedures -- well, like I said, I'm trying to -- I know he
9 can't come up with the ultimate answer on this.

10 THE COURT: Right. Right.

11 MR. HART: I understand this, but he has factors,
12 time --

13 THE COURT: Okay.

14 MR. HART: -- level of accuracy.

15 THE COURT: Okay. So you can ask him how would it
16 affect the -- how does it affect the identification if the
17 person trying to make the identification has never seen the
18 other person before --

19 MR. HART: Okay.

20 THE COURT: -- is of a different race --

21 MR. GIORDANI: Right.

22 MR. HART: Okay.

23 THE COURT: -- and is trying to make an
24 identification in multiple lineups and is trying to make an
25 identification eight months later, or ten months later or five

1 weeks later. That's all fine.

2 MR. HART: Okay.

3 THE COURT: But I think the problem is you are saying
4 He said this. What does that mean. That's where you're going
5 to have a problem.

6 MR. HART: Okay.

7 THE COURT: And they're going to object every time on
8 that.

9 MR. HART: Okay.

10 THE COURT: Okay.

11 MR. GIORDANI: Thank you.

12 (Conference at the bench ends.)

13 THE COURT: All right. Let's try that again.

14 BY MR. HART:

15 Q Okay. If you have an identification within 24 hours
16 where the identification is positive looks just like him but it
17 is not a double-blind lineup, how is that affected?

18 A Well, you have the advantage of a relatively short
19 passage of time. You have the positivity of the choice. That
20 is a person saying that same it looks just like him. You don't
21 have the most preferred procedure, which is the double-blind
22 procedure, but that doesn't make the choice invalid or
23 worthless. You have a witness who's saying this is the person.
24 They're saying it within a relatively short time, the time
25 interval that is associated most with accuracy, but you don't

1 have the very best identification procedure, but you have a
2 statement of a positive identification.

3 Now, if the individual chosen is not somebody who's a
4 suspect of the police, then the absence of double-blind is not
5 that important. Double-blind becomes very important if the
6 police know a particular choice, No. 3 or whatever, is their
7 suspect, and that's the one who gets chosen. So the major
8 factors here are the shortness of time and positivity of the
9 identification. The lack of a double-blind procedure is
10 certainly something to consider, but it is not a major
11 consideration unless the person chosen was someone that was the
12 police suspect.

13 Q Okay. So if it was somebody that wasn't their
14 target, then the double-blind wouldn't be nearly as vital?

15 A Correct.

16 Q Okay. What about a -- where it's about 14 months
17 later, and they've been shown multiple lineups, and they pick
18 somebody at 50 percent accuracy 14 months later?

19 A First of all, if you have a passage of 14 months, you
20 have two effects on the memory. One is just simple decay. I
21 mean, unfortunately all of our memories decay. The other
22 problem though is you get the introduction of other factors,
23 knowledge you learn about the incident, responses from other
24 people even if you don't remember them, photographs you were
25 exposed to in the interim. So time has two effects, not only

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1 decay, but also the introduction of other information that can
2 cloud your memory because it becomes incorporated into your
3 memory, and this makes you less accurate.

4 Now, in that second procedure you've asked me to
5 assume, if it occurs at that level, 14 months later and what
6 you get is a statement of resemblance, 50 percent,
7 60 percent -- I'm not sure which one you said -- but you don't
8 have a positive identification there at all. You have a
9 statement of similarity 14 months later that could easily be
10 influenced by a whole number of factors other than that's the
11 person that was seen, especially if it's a different person
12 than the person had identified right after the crime within 24
13 hours.

14 MR. GIORDANI: And, Judge, I would object to the
15 witness's statement that you don't have a positive
16 identification. That's for the jury to decide.

17 THE COURT: Well, I think the statement as it was
18 couched was it's not positive because the person said 50 or
19 60 percent. He was assuming the hypothetical that Mr. Hart
20 proposed.

21 MR. HART: Okay.

22 THE COURT: Based on that, I'll allow it to stand.

23 BY MR. HART:

24 Q And so when you say doesn't have an identification, I
25 assume we're talking in some scientific realm here. You keep

1 talking about resemblance and other words that you use. I
2 don't mean to sound terrible, but --

3 A I was answering with respect to the definition I had
4 set up, the pick of the very same person that you saw before in
5 the context of a fair test. Pick means that person looks just
6 like that person. That is the person. I'm sure that's the
7 person. All those are kind of interchangeable, but it's not a
8 statement of kind of a percentage of certainty, which is on the
9 other hand a resemblance. You know, I'm not sure. I'm only X
10 percent sure. I'm not a hundred percent sure. I'm only X
11 percent sure. That's how I was answering the question.

12 Q If that was a double-blind though, wouldn't that help
13 with that identification?

14 A Well, if it were a double-blind procedure, then you
15 could eliminate any kind of influence by the officer conducting
16 the procedure on the witness. That's what double-blind's all
17 about is to limit the potential influence of the test
18 administer -- administrator -- forgive me -- on the person
19 taking the test, and given the fact that eyewitness ID is very,
20 very difficult under the best of circumstances that's essential
21 so as not to influence that witness.

22 Q Okay. What about if it was 14 months later,
23 60 percent and not a double-blind, it was a six-pack
24 nondouble-blind, how would that --

25 A Well, the problem is without a double-blind, as the

1 National Academy of Sciences points out, you just don't have
2 any way of knowing how much the answer is due to unintended,
3 unaware influence by the test administrator on the witness.
4 There's just no way of knowing. You can ask the witness, well,
5 do you think you were influenced. Well, if the person says,
6 no, what are we to make of that? Are they supposed to be aware
7 of everything that influences them? Well, rarely are people
8 aware. They certainly aren't aware in ID procedures which are
9 relatively rare procedures for people. So they cannot tell
10 whether anything has influenced them, and they may have been
11 influenced, and without the double-blind there's no way of
12 knowing if there was influence.

13 And if the person chosen was the suspect of the
14 police, then you have a very strong problem with respect to
15 that influence being present because the net outcome is the
16 choice, even if it's a completely uncertain choice of someone
17 the police suspect -- suspect -- forgive me.

18 Q What about on a sequential, is double-blind also
19 equally important? Well, I mean also --

20 A Yes, sequential procedure, I mean, it's not just for
21 multiple targets. It's not for, you know, just some little,
22 you know, special thing. Sequential means the witness doesn't
23 compare one photograph with the other. The term I use and have
24 used for years now is comparison shopping, you know, this one
25 more than that one, that one more than that one, and they come

1 down to the last man standing. That turns out not to be an
2 accurate way of making an eyewitness identification. So when
3 you use a sequential procedure, what you're attempting to do is
4 take away this comparison-shopping strategy that witnesses tend
5 to use.

6 And most often if it is not sequential, if the
7 witness does get a chance to compare one with the other, you
8 get a much higher proportion of looks like kinds of answers
9 because what they're really saying, the research has revealed,
10 is out of this set of six alternatives alternative No. 3 looks
11 more like the person that I remember seeing than any of the
12 others. Well, that is a statement of resemblance, and it's
13 even worse because all they're doing is considering those six
14 photographs, not the universe of people. So it is not a good
15 way to do things. That's why sequential double-blind is the
16 preferred way.

17 Q Okay. What about sequential nonblind?

18 A Well, that's the worst possible way of doing it
19 because the double-blind precaution exists to try to eliminate
20 any potential influence from the officer to the witness. Once
21 again, not because we don't trust the officer but because human
22 beings don't know everything they do that influences others.
23 Now, they know in a sequential procedure the exact photograph
24 that the witness is looking at because they only see one photo
25 at a time. So they know which photo the witness is looking at.

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1 Now imagine if they know that the witness is now
2 looking at the picture of the person that they -- the police
3 officer -- really believe was responsible for this crime, the
4 chances of potential influence are much greater than if the
5 witness is just looking at a set of six photographs. You can't
6 really track people's eye movements regardless of what anybody
7 says without a good camera to do it. So sequential
8 nondouble-blind is the worst possible way of doing things
9 because of the potential of influence.

10 Q Okay. And you've gone through the proposals. Is it
11 ever appropriate for an officer to interrupt somebody during
12 the identification process as they're picking somebody out?

13 A No. The whole issue here is that this is not some
14 kind of, you know, social interaction, or it shouldn't be.
15 This is a test of what's in the witness's mind. Anything that
16 officer says or anything that officer does can be interpreted
17 by that witness, maybe not even in the way the officer wants
18 them to interpret it, but it affects the evidence. So the
19 strongest kind of procedure is one that is not done by anybody
20 who knows who this suspect is, doesn't interrupt the procedure
21 to explain it further.

22 All the explanation should be before the witness
23 starts the task, not during the task. The witness may
24 interpret that interruption in a particular way. Well, they
25 want this kind of answer, not that kind of answer. Now,

1 there's no guarantee a witness will do that, and I don't know
2 what a witness in this case did or did not do. The policy is
3 by the Department of Justice and by all these other bodies is
4 the procedure should be done without any interruption or any
5 statements by the administrator of the task.

6 Q And before you came here I did give you a chance to
7 go over some of the information, correct?

8 A Oh, yes, lots of it. Yes.

9 Q Okay. And how does an identification going through
10 the -- is there any studies as to identification during lineups
11 and then subsequent identification in a court proceeding?

12 A Yes. The repetition of a person from one
13 identification procedure to another or another opportunity to
14 observe is something that has been studied quite extensively.
15 What you have is repetition creates a taint. You see the same
16 person in two identification procedures. If that person is
17 identified in the second procedure, there is no way to screen
18 out the effects of exposure in the first procedure.

19 Now, more specifically with respect to identification
20 procedures in court. The identification has to be in a valid
21 procedure, valid meaning it doesn't suggest anything in and of
22 itself, and it's just a measure of what's in a witness's mind.
23 An in-court procedure by its very nature cannot satisfy those
24 criteria. There is one person there seated at the defendant's
25 table, and if that person has been repeated from a prior

1 identification procedure, then any choice of that person in
2 court is completely tainted with respect to demonstrating the
3 ability of the witness to make an eyewitness identification.

4 There's no way that you can say that choice in court
5 only comes from some little box of memories stored up in the
6 mind from the time of the event. The longer the time since the
7 event, the more that person has been exposed to faces of the
8 individual in court, the less you can say anything about that
9 demonstrating an ability to identify. It may be very
10 important. It may be important to see if the witness is still
11 consistent. You know, is this the same person you chose in
12 this identification procedure, you know, perhaps is the fairest
13 way of saying it.

14 But in-court identifications are not identifications
15 in the sense of demonstrating an ability to pick out the very
16 same person you saw before. There's no fair test whatsoever.

17 Q You said people's sureness level gets better with
18 time?

19 A Yes, and that's the other thing. As people commit
20 themselves and as they continue to commit themselves over time,
21 they get more and more confident. Now what's happening to the
22 contents of their memory upon which that confidence is
23 supposedly based? It's actually deteriorating. So you get
24 this very interesting factor.

25 Memory is deteriorating. Our memory doesn't get

1 better with time, and yet people are becoming more and more
2 sure about something they saw long ago. Well, that's a measure
3 of commitment. I'm committed to this. It has nothing to do
4 with accuracy, and in fact it's really not even a measure of
5 confidence. It's a measure of commitment. I know they're
6 subtly different. I've committed myself to this, and I'm going
7 to stick with it, not a situation where, you know, I'm sure
8 because of the various reasons.

9 Q What about in a situation where somebody is saying
10 that person looks familiar. I don't know where but was later
11 able to identify them in another situation as being someone in
12 particular?

13 A That's called source confusion and basically
14 illustrates the fact and the finding -- a quite substantial
15 finding -- that as good or bad as we were about recognizing
16 somebody, we can sense sometimes a sense of familiarity about a
17 face and attribute it to the wrong circumstance.

18 So, for example, you see somebody in an ID test, and
19 you don't choose them. Later on you go through another ID
20 test, and that same person is repeated in that second test, and
21 you say, well, that person looks familiar, and you attribute
22 that to having seen that person at the scene of the crime.
23 Well, it turns out you can actually be mistaken about the
24 source of that familiarity, and it could be due to the fact you
25 saw that face in the first identification procedure.

1 I mean, identification procedures are pretty rare in
2 people's lives. Look at these faces and see if you see
3 somebody. It's one of the few times you're ever asked to do
4 something like that. So you may gain familiarity with one of
5 the faces in there even if you don't choose it. If later on
6 you see that same person in another ID procedure, they may look
7 familiar, but now you can't eliminate the fact that maybe that
8 familiarity is due to having seen that person in a prior
9 identification procedure. You can't say it's absolutely
10 connected just to having seen him at the crime.

11 Q And if I'm wrong, please. So the first time
12 somebody's identified is probably the best indicator or -- I
13 don't know how you --

14 A Yeah, you're right. It is the best indicator. It's
15 best in the sense it's closer in time to the event. So you get
16 less memory decay. Closer in time to the event, less affected
17 by all kinds of other identification procedures that can occur
18 and outside information and thoughts about, well, what is this
19 all -- you know, what's the importance of all this and so on.
20 All of those things have nothing to do with your ability to
21 identify somebody. So the conditions under which you make your
22 first identification are the most important. Delayed
23 identification is very, very troublesome and full of all kinds
24 of problems.

25 Q And if your first identification was over a year

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1 later is what I'm asking, and then the next identification is
2 another year past that?

3 A Well, you have an enormous amount of time, an
4 enormous amount of memory decay, and so if your first
5 identification occurs only a year after your initial
6 observation, that is very problematic and potentially
7 influenced a lot by lots of strangers that resemble each other,
8 and you've got lots of memory decay in that kind of passage of
9 time.

10 Q And then the subsequent after that?

11 A Even more so. Even now you're tainted because the
12 same person's repeated, and you have increased amount of time
13 and increased decay.

14 Q You're not saying that it's impossible for people to
15 get the in-court identifications wrong, correct?

16 A No. As a matter of fact, you know, typically, you
17 know, an in-court identification is a confirmation of a prior
18 choice. Now, that puts more focus on what were the conditions
19 of the prior choice. It might have been a very good
20 identification procedure. You know, that's the guy. So then
21 in court they repeat that's the guy I saw, but really what
22 they're doing is confirming the choice they've already made.
23 So in that sense they could be completely accurate.

24 Q Okay. So the initial is the important part?

25 A Absolutely.

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1 MR. HART: Nothing further.

2 THE COURT: Okay. State.

3 MR. GIORDANI: Thank you, Your Honor.

4 CROSS-EXAMINATION

5 BY MR. GIORDANI:

6 Q Good afternoon, Doctor.

7 A Good afternoon, sir.

8 Q I want to make something crystal clear up front.

9 You're not here to tell this jury that any of the witnesses in
10 this particular case were inaccurate in their identifications
11 of the defendant?

12 A That's absolutely correct, sir.

13 Q They may very well have been dead bang on?

14 A Could be. It's possible.

15 Q Thank you. Especially considering multiple people
16 too identified one particular individual as --

17 A Unfortunately not. There's no safety in numbers
18 here. The problem is that multiple witnesses in terms of
19 numbers can be put through similar identification procedures
20 that are problematic --

21 Q And I understand that. Let me stop you for a moment.
22 What if they're put under -- through different procedures?

23 A Well, once again, it still could be a problem with
24 procedures in general.

25 Q Okay.

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1 A If there is a lot of time that passes, if there's any
2 kind of, you know, knowledge of what went on that could be
3 affecting them, all of these things have created what we call
4 no safety in numbers. There are multiple eyewitnesses all
5 identifying the same or wrong person in many cases that I've
6 been involved in and that are well known in the United States.

7 Q And you talked about the idea that time is a big
8 factor in whether you're accurately identifying someone; is
9 that correct?

10 A Yes, sir.

11 Q How about the difference between identifying someone
12 and describing someone, does time have an effect on that as
13 well, describing someone?

14 A Well, sure. If the description is coming from memory
15 and memory is decaying with the passage of time, then the
16 description would also suffer.

17 Q Okay. So I guess in the same logic then a
18 description given almost immediately after perceiving any event
19 would be more accurate than a description given later?

20 A Assuming that the person has calmed down and is not
21 all emotionally aroused, yes.

22 Q Sure. So if someone were to call 9-1-1 and give a
23 description immediately after witnessing a murder, that would
24 be more accurate than a description given later to a police
25 officer or a detective; is that fair?

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1 A In general, all other things being equal, yes.

2 Q Okay. What did you review for your testimony today?
3 You mentioned you reviewed a lot of stuff or material?

4 A Yeah. Well, the initial event occurred in August of
5 the year '13, August 23rd to be precise.

6 Q Right.

7 A And then there were lots of identification
8 procedures, September of the year '13, various dates in
9 September, and then there was another one in the year '14 in
10 October, October 29th of the year '14, and there were
11 interviews with various witnesses at various dates in between.

12 Q Okay. So you -- just to be clear, you reviewed what
13 you say are our identification procedures? For our terms
14 that's lineups, sequential, six-packs and any transcripts or
15 interviews that went with them?

16 A Yes, sir.

17 Q You did not review any phone records in this
18 particular case?

19 A I did not.

20 Q You wouldn't have any idea if there were phone
21 records corroborating identifications?

22 A That's correct.

23 Q You talked about the idea of stress affecting how
24 someone perceives an event?

25 A Yes.

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1 Q And correct me if I'm wrong, but I believe what you
2 were getting at was if you're placed in a stressful situation
3 your ability to perceive accurately is affected by that stress;
4 is that --

5 A Well, in effect there's two things going on. There's
6 focus of attention --

7 Q Okay.

8 A -- and then high stress. Focus of attention is
9 important. For example, something may be going on and you're
10 not focusing your attention on it. You're just not paying that
11 much attention. Then all of a sudden it becomes very, very
12 stressful. At that point then the stress is the most important
13 operative factor. Prior to that there's not much to call your
14 attention to anything. After that of course you're suffering
15 from the negative effects of stress. So it's difficult to make
16 any kind of rule here.

17 Q Okay. And I understand. I mean, this is kind of a
18 tangible type of thing we're talking about here. There aren't
19 bright line rules generally, right?

20 A No, you're absolutely right. There is no
21 black-letter-law formula, so to speak, in psychology.

22 Q Okay. With regard to the idea of stress affecting
23 perception, would you agree or disagree with me that if you are
24 observing someone prior to a stressful event for several
25 minutes before any stressful event occurs, you would have a

1 better or more accurate, be able to convey a more accurate
2 description of that person?

3 A If, in fact, you were paying attention and that would
4 be, of course, substantiated by the detail in your description.

5 Q Okay. Same thing would go if you're in close
6 proximity to that person, I mean, that would have an effect,
7 right?

8 A Once again, distance would -- lack of distance would
9 help if you were using that opportunity to pay attention to
10 that person, and the only way we know -- can't read their
11 mind -- is how did they describe that person.

12 Q And again the description they give, if it's very
13 close in time, that would be more accurate than a description
14 given later?

15 A Yeah, if it is detailed, sure.

16 Q Okay. Detailed as in like specific height, a
17 specific color of T-shirt they're wearing?

18 A Well, clothing is not so frankly detailed. Age of
19 the individual.

20 Q Okay.

21 A Height, weight, ethnicity, facial details, tattoos,
22 marks, scars.

23 Q Facial hair?

24 A Facial hair might be. It's a little too general.
25 What kind of facial hair is it? Is it a beard? A mustache?

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1 What kind of mustache? You know, I mean, none of this is
2 rocket science. It's pretty obvious in terms of what detail
3 amounts to, but the more detail that would help you pick out or
4 even help the police, you know, associate that description with
5 a particular individual would be of course evidence that you
6 were paying attention even if the lighting were good and the
7 distance were adequate and the time was adequate.

8 Q So that would support -- more detail initially
9 moments after a startling event would support --

10 A Right.

11 Q -- the -- an accurate description?

12 A True, but not clothing, the person.

13 Q Okay. You mentioned you've been testifying for
14 decades, 40 years I believe or so?

15 A Sounds like a terribly long time, but it's true.

16 Q Yeah. Over a thousand times?

17 A Right.

18 Q You admitted never for the prosecution?

19 A So far that's correct.

20 Q Always for the defense?

21 A Correct.

22 Q You indicated you do get paid for your time?

23 A I do.

24 Q I think we all understand that. How much are you
25 getting paid for today's testimony?

1 A Well, it's time from the beginning of the review,
2 evaluation, consultation and then also the time to testify. So
3 it's a --

4 Q So not just today. What are you getting paid in
5 total?

6 A Total I think is going to be about \$5,000.

7 Q \$5,000 for your testimony today and all the
8 preparation leading up to today?

9 A Right. It's 250 an hour times 20 hours.

10 Q When it comes to preparation, you indicated you've
11 reviewed the ID, the photo lineups, et cetera. Did Mr. Hart or
12 did you discuss what questions he would ask you today here in
13 court?

14 A Absolutely.

15 Q And you and I have never had a chance to speak until
16 just now?

17 A That's correct.

18 Q Would you agree or disagree that identifying a human
19 being in person is, I guess, more accurate than identifying a
20 one-dimensional photo?

21 A Well, photographs are tough because they're small
22 two-dimensional depictions of just a part of a person.

23 Q Okay.

24 A Identifying a person in the flesh or in a live lineup
25 would be and is better, but if you say well, what about a

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1 six-pack, six photographs and one live person? Now you've
2 created a major difference between those two. So you have to
3 have comparable apples to apples so that you say compare a
4 photo six-pack, six small two-dimensional photographs against
5 six live people standing up on a, you know, platform.

6 Q If a person who is identified in court has changed
7 their appearance drastically since they were placed in a photo,
8 would that affect the witness's identification of that person?

9 A Unfortunately not. The courtroom setting is so
10 suggestive in terms of where that person is seated, that and
11 the whole proceeding, it's just essentially meaningless unless
12 you put that person out in the audience somewhere. Then, you
13 know, there's no expectation on the part of the witness as to
14 the placement of that person. Then you might get some
15 information, but in-court identifications are just so
16 completely suggestive. They're of no value in demonstrating
17 the ability, whether that person has changed their appearance
18 or not changed their appearance.

19 Q And, Doctor, I assume you're not telling this jury
20 that the thousands and thousands of in-court identifications
21 that go on every week across the nation are inaccurate?

22 A No, no, not inaccurate, worthless with respect to
23 demonstrating the ability to identify. Now, there are other
24 issues. You want sworn testimony from the witness about who
25 they identify. You want consistency from a prior

1 identification --

2 Q And would that be -- I don't mean to cut you off.

3 A No. Sorry.

4 Q But would that be consistency all the way back until
5 immediately after the event when the 9-1-1 call was made?

6 A If -- it could be. I mean, it's depending on the
7 circumstances, but it itself --

8 Q Let me stop you, Doctor. I hate to cut you off, but
9 I want to get to something before we take a break. Now, I
10 don't believe that you said on direct examination anything
11 about in-group details?

12 A I'm sorry. I don't understand what you mean by
13 in-group details.

14 Q In-group versus outgroup categories --

15 A Oh --

16 Q -- is that something you're familiar with?

17 A -- you're talking about cross-racial identification?

18 Q Right.

19 A Okay. Sure.

20 Q And I've had an opportunity to review some of your
21 testimony from another case, and so I don't think you mentioned
22 that with Mr. Hart; is that right?

23 A I did not today mention that, yes.

24 Q And you in your prior testimony -- correct me if I'm
25 paraphrasing or quoting anything wrong -- but you've indicated

1 under oath in court before that in-group details are paid
2 attention to. Outgroup categories are established, less
3 processing of specific details. Does that sound accurate?

4 A It does. It's a little disjointed but generally --

5 Q Okay. Fair enough.

6 A -- yeah.

7 Q What do you mean by in-group details?

8 A Sure. Well, the issue is this. People who look the
9 same as one's self are identified with greater accuracy than
10 people who look different than one's self. One of the ways in
11 which people look similar or not is race. It's not the only
12 thing, the age. So what's responsible for this because this is
13 a finding that is found in several countries, it's very
14 substantial. It's part of the jury inception in some states.
15 You know, cross-racial identification is less accurate than
16 same race.

17 Well, why is it less accurate? Well, one of the
18 reasons is that if it's somebody who is different than you, I
19 use the term they're out group. In other words, they're not
20 part of your group. They're in the other group. In the other
21 group there is more categorical considerations. That is a
22 white man, okay. That would be a characterization of somebody
23 in a group. Now, if you're a white man and you're saying
24 that's a white man, that's less -- first of all, that's less
25 probable as a characterization or a categorization. You go

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1 more into details, and subsequently you're more accurate in
2 your identification. So across these lines, racial, age,
3 differences in the way people look, they depend on different
4 things to make their identification.

5 Q So if someone is in your group or class as you put
6 it --

7 A Right.

8 Q -- your idea of them is more accurate than say
9 someone of a different race, or like an African-American male
10 identifying a 60-year-old Asian woman would be less accurate
11 than a twenty-something African-American male or partially
12 African-American identifying another African-American male in
13 this case?

14 A Right. In other words, cross-racial identification
15 is a risk factor. If you don't have that risk factor, you
16 don't need to worry about it, but the absence of that risk
17 factor does not guarantee accuracy, no more than not having
18 diabetes guarantees you're in good health. It's the absence of
19 a risk factor. It's a good thing. It doesn't mean the
20 identification is correct.

21 Q But it doesn't mean it's wrong either?

22 A No, it doesn't mean it's wrong either, but it
23 certainly doesn't mean it's correct.

24 Q Sure. You indicated sequential lineups are somewhat
25 superior to six-packs; is that accurate?

1 A Yes.

2 Q And assuming a sequential lineup is done the
3 appropriate way, that would be more likely to render a positive
4 identification or an accurate identification?

5 A All other things being equal, sure.

6 Q What's a balanced admonition?

7 A A balanced admonition is what I think I referred to
8 before. It contains the phraseology that it is just as
9 important to clear the innocent as to identify the guilty.

10 Q Are you familiar with Las Vegas Metro's admonition?

11 A Yes, I have one right here.

12 Q Oh, you do?

13 A Yes.

14 Q Does that include that language?

15 A Yes, because of the research and efforts of
16 psychologists like myself they have now included that.

17 Q Good. Okay.

18 A Yeah.

19 Q So your work and others has led to them putting that
20 in the lineup?

21 A That's correct.

22 Q And that should be read before the photos are shown?

23 A Right.

24 Q With regard to perception generally, maybe you can
25 educate me on this. Would hearing something be kind of similar

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1 to seeing something when you're perceiving, or is that a
2 different realm altogether?

3 A It would really -- I can't give you a complete answer
4 because it would depend on the circumstances. If you're
5 talking about a voice of somebody for example --

6 Q I'm not talking about a voice. Let me just save you
7 there.

8 A Okay.

9 Q Hearing a term or a word or a name?

10 A As opposed to?

11 Q If someone hears something, a term or a word or a
12 name, would they have the same issues? Would the same things
13 come into consideration when they're reconveying that
14 information that they've perceived?

15 A Well, sure, because first of all unless there's only
16 one person that statement could be attributed to there's always
17 a possibility somebody else could've said it. So if you could
18 see that person's mouth moving and utterances coming out of it,
19 then you know who said what, assuming you can hear exactly what
20 it is that's coming out of their mouth. But as long as there
21 is a potential of more than one speaker, as long as the
22 conditions under which you're hearing this are not -- you know,
23 you're looking at their face, it could be a lot of things. It
24 could be errors of all kinds.

25 Q Okay. If the word or name or whatever it is is

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1 unique, say I perceive someone yelling out xylophone, it's a
2 unique -- unique word, right?

3 A Right.

4 Q And I'm trying to tell someone later, hey, I heard
5 this guy screaming xylophone, xylophone, xylophone; is my
6 ability to perceive that greatened because it's a unique word?

7 A Yes.

8 Q Okay. Would you agree that Emone is a unique name?

9 A Yeah, I would agree it's unique. Yes.

10 MR. GIORDANI: Court's brief indulgence.

11 THE COURT: Okay.

12 MR. GIORDANI: I'll pass the witness.

13 Thank you, sir.

14 THE WITNESS: Thank you.

15 THE COURT: Mr. Hart.

16 REDIRECT EXAMINATION

17 BY MR. HART:

18 Q And on that term xylophone, if it was the officer
19 that asked, did you hear the word xylophone five different
20 times, would that affect --

21 A Well, that's a problem. You see, one of the things
22 we have to guard against constantly is the intrusion of
23 information from other sources, well-meaning sources. That is
24 a suggestive question, okay. If you say, did you hear any
25 words that were unique and the witness says, yeah, I heard the

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1 word xylophone, okay, then you have the uniqueness coming from
2 the witness.

3 If it's the hypothetical that you pose, what if the
4 officer said, did you hear xylophone, then the witness says
5 well, I heard something; it could be xylophone. Yeah, I think
6 I heard xylophone. Now you know there's no way of knowing
7 whether that's really what the memory of the witness is or the
8 witness is responding to the suggestion of the authority
9 figure, and police fortunately are authority figures.

10 Q What if they repeated the word xylophone, different
11 variations five times?

12 A Well, that gives even more of a potentiality that it
13 is suggestion from the questioner rather than in the memory of
14 the witness.

15 Q Okay. And we talked about some of the questions I
16 should ask you, correct?

17 A I'm sorry?

18 Q We did talk about some of the questions I should ask
19 you?

20 A Absolutely.

21 Q You gave me a little lesson on this?

22 A I sure did. I do it in all cases.

23 Q And I'm not allowed to ask you what you do for a
24 living was one thing you told me do not ask?

25 A No, you can ask me what I do for a living.

1 Q Okay. When you asked about the 9-1-1 call and the
2 information, you said that would be good, and you talked about
3 excitement in detail. What kind of detail would make it
4 something you would want to -- would affect you on your
5 factors?

6 A Well, sure. What you --

7 Q I guess I'd want to use -- that's your word, right?

8 A Yeah. I was trying to lay out detail before. It's
9 not the easiest task in the world. I said, you know, height,
10 weight, ethnicity, age, round face, square face, tall, you
11 know, the various factors that would differentiate a person
12 from other similar-looking people. So, you know, he had ears
13 that stuck out like a barn door.

14 I mean, you think of President Obama, a nice-looking
15 guy, but he's got big ears, and he -- you know, he refers to
16 them himself. So you say he was a nice-looking guy. He looks
17 like he's -- I don't know -- mid-50s or something. You know,
18 the more detail you can come up with the better it is in terms
19 of specifying that particular stranger as opposed to another
20 stranger.

21 Q Okay. So general ethnicity, color of shirt and age,
22 would you consider that detailed?

23 A Not the color of the shirt because people can change
24 their clothes very easily. That might help in terms of who
25 you're talking about, but, you know, it's not going to help the

1 police very much in tracking somebody down.

2 Q Right. What about complexion? Is that one you would
3 want?

4 A Yes, dark complected, light complected, that would be
5 very useful. Yes.

6 Q And like I said, you were asked and he said that you
7 said sequential is a better way to go, but then when I asked
8 you you said it's the worst. I'm trying to --

9 A Yeah. Well, it's the presence or absence of
10 double-blind, and I'm sorry if I was confusing. Sequential
11 without double-blind, without the precaution that the guy --
12 the person, man or woman doing the procedure is not aware of
13 which one is a police suspect is the best way to go.

14 Sequential without that precaution, where the person
15 doing the procedure knows who their suspect is and therefore
16 knows because of the sequential nature exactly which photograph
17 the witness is looking at, that's the worst because of the
18 potential of inadvertent influence.

19 Q And you said something about calm down at the time
20 that they make the identification or they give the information
21 would affect you.

22 A Well, if you're emotionally aroused and upset and
23 excited, then, you know, your information is not going to be as
24 accurate as it could be. So whatever identification, a part of
25 the identification procedure it is, whether it's a 9-1-1,

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1 providing a description, looking at photographs, whatever it
2 is, it's not going to be as good if you're emotionally agitated
3 as if you calm down.

4 Q So you said time makes it worse? It deteriorates
5 your memory?

6 A Right. Now, again if it's right after the event and
7 you're still emotionally agitated, that's not going to be so
8 good for accuracy. If you wait a little bit and the person is
9 able to calm down, although you have more passage of time
10 there, maybe an hour, two hours, whatever, then you get better
11 information, but if you wait a couple days, a week, months, you
12 know, two and a half years or whatever, then you get really
13 poor information.

14 Q Okay. And cross-racial identification, that's
15 basically -- that works every way, correct? If it's an
16 African-American looking at a Caucasian or vice versa?

17 A Yeah, it's the differences between the witness and
18 who they're observing.

19 MR. HART: Nothing further.

20 THE COURT: Mr. Giordani, anything?

21 MR. GIORDANI: Just very briefly, Judge.

22 RECROSS-EXAMINATION

23 BY MR. GIORDANI:

24 Q Sir, I just wanted to get back to the initial --
25 initial description immediately after an event?

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1 A Sure.

2 Q When I asked you the question, it seemed you were
3 pretty certain that that's probably the most accurate
4 description you're going to get, but then Mr. Hart asked you,
5 and you said, Well, no, not if you're under stress?

6 A True.

7 Q So is there ever a time when a witness can give an
8 accurate identification or a description of a person?

9 A Sure. As I just said, you know --

10 Q When is that?

11 A -- you wait a little bit, an hour or two or, you
12 know, half hour or whatever. If they're in the midst of
13 reacting to the emotional agitation of what just occurred,
14 you're not going to get very good information. So you want
15 them to calm down. How long does it take? It depends on the
16 person. It could be a half hour. It could be 45 minutes.

17 Q Understood. You, yourself, have never administered a
18 photo lineup to a witness or a victim in a criminal case; is
19 that fair?

20 A Not in an actual case.

21 Q Okay.

22 A I've done it under test circumstances.

23 Q Lab test circumstances?

24 A Right.

25 Q Never in real life?

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1 A True.

2 Q You understand police investigations are dynamic.
3 Things change. Things are happening quickly. You would agree
4 with that, right?

5 A I would. Even more reason for training because those
6 are difficult circumstances for the police.

7 Q Sure. Now, you talked about at the first -- you
8 talked about time decaying the memory?

9 A Right.

10 Q If the first time a person is shown a photograph of
11 someone is a year after an event and they say I am 60 percent
12 sure that's the guy, something to that effect, can I assume
13 then that because memory decays that that certainty level
14 would've been higher earlier if they had been shown that actual
15 photo?

16 A Well, if that's the person, yeah.

17 Q Okay.

18 A And are you assuming there's only one photograph
19 being -- forgive me. Did your question assume one photograph
20 being shown?

21 Q I think I got my answer. I'll just ask the one last
22 thing.

23 A Okay.

24 Q You understand this is a homicide case? This is a
25 murder?

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1 A I do.

2 Q And someone coming into court, you would have this
3 jury believe that because the defendant is sitting where he's
4 sitting that someone would have the constitution to stare them
5 in the face and identify them as a murderer; that's inaccurate
6 and suggestive, overly suggestive?

7 A I would not describe it that way at all. What you're
8 asking is is there anybody in court or is that person you point
9 out? It depends on how it happens. The person you saw, or do
10 you see anybody in court who is the person you saw at the scene
11 of the crime, whatever the specific language is, but you're
12 referring to a specific person seated at a very prominent, you
13 know, place in the courtroom near the defense attorney as
14 should be the case, and what I am maintaining is that's maybe
15 very important for all kinds of reasons, but it is not a valid
16 test of that witness's ability to identify the person they saw
17 at the scene of the crime.

18 Q But very important for many reasons?

19 A Yeah, consistency, having it under oath. I don't
20 know. Maybe there are other legal reasons I'm not aware of,
21 but it has nothing to do with the psychological or the human
22 ability to make an accurate eyewitness identification.

23 Q But it could be accurate, could be inaccurate; that's
24 not for you to say?

25 A Well, that's true at any stage, you know.

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1 MR. GIORDANI: Thank you.

2 Pass the witness.

3 THE COURT: Mr. Hart, anything further?

4 MR. HART: Just very quickly.

5 FURTHER REDIRECT EXAMINATION

6 BY MR. HART:

7 Q So the term you use is a confirmation, not an
8 identification?

9 A Yes.

10 Q In courtroom?

11 A Exactly.

12 Q And on the in group, would you -- did you explain
13 when you answered originally that depending on the excitement
14 level on the 9-1-1 call or --

15 A Well, forgive me. I think you're mixing together two
16 separate things.

17 Q Okay. Not a problem. And if it's somebody in an
18 inclusive group -- in group or outgroup, what's the term you
19 use?

20 A I was using in group, outgroup as a way of explaining
21 the effects of what is otherwise called -- and I think probably
22 unfortunately -- cross-racial identification.

23 Q Would you expect more specificity, more description,
24 more detail on an in-group identification 9-1-1 type call?

25 A Well, all other things being equal, people of the

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1 same group use more detail in describing each other than people
2 across racial lines or in group to outgroup. So assuming all
3 other things being equal, a 9-1-1 call about somebody belonging
4 to your group as opposed to a 9-1-1 call about somebody
5 outgroup, you'd expect more detail from the first than the
6 second.

7 Q Okay. And you haven't heard a 9-1-1 call in this,
8 correct?

9 A I have not.

10 Q On a 9-1-1 call, as far as detail, would you expect
11 them to list a number of people who were there?

12 A Well, you could expect a lot of things depending on,
13 you know, the circumstances and the emotional level of the
14 person making that call. So, you know, obviously the more
15 detailed information you get the better. The less detailed the
16 more confused, the more vague, the less helpful it is to
17 everyone.

18 Q Okay. And also for the later confirmation?

19 A That's true, yes.

20 MR. HART: Nothing further.

21 THE COURT: Can you guys approach, please.

22 (Conference at the bench begins.)

23 THE COURT: All right. So I'm just trying to figure
24 out what time to tell them to come back tomorrow. Since I've
25 got to leave in about 15 minutes we're not going to get the

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1 jury instructions all done I'm assuming.
2 MS. FLECK: Are you done?
3 MR. HART: Yes, I am -- well, I've got to double
4 check with him, but I think I'm done.
5 MR. GIORDANI: Can we do the --
6 THE COURT: Okay. Double check with who?
7 MR. HART: My client.
8 THE COURT: Oh, okay.
9 MS. FLECK: Can we do the admonition now?
10 THE COURT: What's that -- yeah. Yeah. Yeah.
11 MR. GIORDANI: And let Marty rest if he's going to
12 rest so we can --
13 THE COURT: I'll do that once -- well, he can't rest
14 until after I do the admonition anyway. So that's got to
15 happen, but I'm just -- my contemplation is to bring them back
16 at 1 tomorrow, and then we'll come in tomorrow morning after my
17 calendar and finish up the jury instructions.
18 MS. FLECK: Okay.
19 THE COURT: Good?
20 MR. HART: That's great. I get to sleep in.
21 MR. GIORDANI: I was going to say the same thing.
22 THE COURT: All right.
23 (Conference at the bench ends.)
24 THE COURT: All right. Any questions from our
25 jurors?

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1 (No response.)

2 THE COURT: No.

3 Dr. Shomer, thank you very much for your time, sir.
4 I appreciate you coming in today.

5 THE WITNESS: Your Honor, thank you very much.

6 THE COURT: Okay. Ladies and gentlemen, we're going
7 to go ahead and break for the day at this point. We're going
8 to start tomorrow at 1 o'clock, and it's our anticipation that
9 tomorrow we're going to get you into closing arguments so you
10 can start your deliberations, okay.

11 So at this time you are admonished not to talk or
12 converse among yourselves or with anyone else on any subject
13 connected with the trial or read, watch or listen to any report
14 of or commentary on the trial by any medium of information
15 including without limitation to newspapers, television, the
16 Internet and radio, or form or express any opinion on any
17 subject connected with the case until it's finally submitted to
18 you.

19 I will see you tomorrow afternoon. Thank you very
20 much.

21 (Jury recessed 3:14 p.m.)

22 THE COURT: Any of you guys see Mr. Steynis, tell him
23 to give me a call, okay.

24 (Off the record colloquy.)

25 THE COURT: Okay. You guys can be seated. So the

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1 contemplation is going to be obviously that tomorrow morning
2 after my calendar is over we'll get together and finalize
3 everything in regard to the jury instructions. So you guys
4 just need to get together on what's been proposed. Before you
5 leave I'm going to give you some of them that I was looking at
6 that I kind of made little tweaks to certain things. I'll give
7 you copies of those as well to each of you.

8 MS. FLECK: Okay.

9 THE COURT: Actually, let me do that real quick. Let
10 me have Molly print those out.

11 MR. HART: Are you e-mailing them, or are you --

12 THE COURT: I'm going to have Molly print them out,
13 and she can forward them to you guys, whatever you want.

14 MR. HART: Can she do both?

15 THE COURT: Sure.

16 MR. HART: Because I'm organized chaos sometimes.

17 THE COURT: Right.

18 (Pause in the proceedings.)

19 THE COURT: Yeah, it was just three of them that I
20 was kind of messing around with. One of them is taking the
21 first-degree premeditated murder dealing with the conspiracy
22 aiding and abetting language.

23 MS. FLECK: Okay.

24 THE COURT: And pulling out of that the felony murder
25 so those are two separate instructions.

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1 MS. FLECK: Okay, that's a good idea.

2 THE COURT: Okay. It's also removed your robbery as
3 a specific intent crime thing that has nothing to do with
4 felony murder.

5 And then the other was, Marty, since you proposed an
6 eyewitness identification instruction, I just pulled one out
7 that I've given in trials before for you guys to look at as
8 well.

9 MR. HART: Okay. Thank you, Your Honor.

10 THE COURT: I'm not saying I'm not considering the
11 one you've given, but I'm just giving you guys the stuff that I
12 have. So I'll have Molly print those three things and e-mail
13 them to you guys as well.

14 MS. FLECK: The one thing I thought that also there's
15 the one that talks about -- the one that talks about felony
16 murder.

17 THE COURT: Right.

18 MS. FLECK: And then it says the intent to perpetrate
19 or attempt to perpetrate a robbery must be proven beyond a
20 reasonable doubt, and then pursuant to Nay, I thought I should
21 add the intent to commit robbery must have occurred at or near
22 the time of death for the felony murder to apply.

23 THE COURT: Okay. I think the one that I'm sending
24 to you uses that instruction, and then it adds the conspiracy
25 or aiding -- a conspirator aiding abetting thing at the bottom.

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1 MS. FLECK: Okay.

2 THE COURT: So if you want to make further tweaks to
3 it, that's fine.

4 MS. FLECK: Okay.

5 MR. HART: And, Your Honor, can I get the one that
6 came -- I know that Ms. Fleck sent me the instructions, but I
7 never got a copy when they were sent to you, you know, carbon
8 copied as to what --

9 THE COURT: Of what Michelle sent?

10 MR. HART: Yes.

11 THE COURT: Okay. Yes, hold on a sec. So do you
12 want it emailed to you, or do you want a copy printed out? I'm
13 sorry.

14 MR. HART: Could I have it e-mailed to me?

15 THE COURT: Sure.

16 MR. HART: I'll print it when I get back to the
17 office if I make it that far. I'm getting heavy.

18 THE COURT: Okay. So there's that. So Molly will
19 get that stuff in to you.

20 And then, Mr. James, I just need to get something on
21 the record with you. You can remain seated, but it's just
22 something I need to go through with you that I'm sure you've
23 talked to your attorney about, and will continue to talk to him
24 about before tomorrow, okay.

25 And that is just that under the Constitution of the

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1 United States and under the Constitution of the State of Nevada
2 nobody can force you to be a witness in the case, which means
3 nobody can make you take the stand and testify.

4 Do you understand that?

5 THE DEFENDANT: Yes, sir.

6 THE COURT: Okay. You may, however, at your own
7 request give up that right and go ahead and take the stand and
8 testify if you want to. If you do that, you'll be subjected to
9 questions not only from your attorney, but from the State's
10 attorneys as well, and the attorneys on both sides will have an
11 opportunity when they argue the case to the jury to comment
12 upon the things you've said, just like any other witness.

13 Do you understand that?

14 THE DEFENDANT: Yes, sir.

15 THE COURT: Okay. If you choose not to testify and
16 you and your attorney want me to do so, I'll give a written
17 instruction to the jury that says it is a constitutional right
18 of a defendant in a criminal trial that he may not be -- excuse
19 me --

20 Can you give those to each of the parties, copies of
21 those.

22 -- it is a constitutional right of a defendant in a
23 criminal trial that he may not be compelled to testify. Thus
24 the decision as to whether he should testify is left to the
25 defendant on the advice and counsel of his attorney. You must

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1 not draw any inference of guilt from the fact that he does not
2 testify nor should this fact be discussed by you or enter into
3 your deliberations in any way. So that's a written instruction
4 the jurors would get with the packet of law that they get at
5 the end of the case, okay?

6 THE DEFENDANT: Okay.

7 THE COURT: All right. In addition, you need to
8 understand that if you have any felony convictions and more
9 than 10 years has not elapsed from the date you were convicted
10 or the date you got off of probation or parole or got out of
11 prison, whichever is the later of those dates -- which means
12 whatever the date is that's closest to where we are now -- if
13 any of those fall within 10 years, then the prosecutors or your
14 attorney would be able to ask you if you've been convicted of a
15 felony, what was the felony and when did it occur, okay?

16 THE DEFENDANT: Okay.

17 THE COURT: They cannot go into the details of any
18 prior felony conviction unless that aspect of things gets
19 opened up by some other type of questioning that occurs, okay?

20 THE DEFENDANT: Okay.

21 THE COURT: All right. Do you understand all of
22 those things?

23 THE DEFENDANT: Yes, sir.

24 THE COURT: All right. So I will leave that to you
25 to discuss further with your attorney to make those decisions

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1 before we formally rest the case tomorrow. Okay?
2 THE DEFENDANT: Okay.
3 THE COURT: All right.
4 MS. FLECK: I'm sorry. How many instructions did you
5 change, three?
6 THE COURT: It should have just been three.
7 MR. GIORDANI: We got three copies of the same
8 instruction.
9 THE COURT: All right.
10 MS. FLECK: I got three of the same.
11 So, Marty, you must have gotten three of the same.
12 MR. HART: Court's indulgence.
13 I got three of the same one too. I didn't look
14 closely, Your Honor.
15 MR. GIORDANI: Judge, on one of them, the one where
16 you separated out --
17 THE COURT: Are they all the same?
18 MS. FLECK: No. No. No.
19 MR. HART: No. No. No. We all got --
20 MS. FLECK: He gave three to Marty --
21 MR. HART: We got three of one. Each of us got three
22 of one.
23 THE COURT: Hold on. Okay. You got three of what?
24 What did you get?
25 MR. HART: I got three of the eyewitness testimony.

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1 THE COURT: Okay.
2 MS. FLECK: I got --
3 MR. GIORDANI: I just split them back up. Now we all
4 have three, one of each.
5 THE COURT: You all each have three instructions?
6 MR. GIORDANI: Yep.
7 THE COURT: Three different instructions?
8 MS. FLECK: Now we do.
9 MR. HART: We're golden.
10 THE COURT: Okay. All right. Okay. So like I said,
11 just take a look at those in conjunction with everything else.
12 And do you guys want to stay here right now and chat about
13 them, or do you want to do it this evening or at your offices
14 or whatever? You don't certainly have to stay. I just want
15 you guys to go through and get everything decided as best you
16 can in terms of what you're in agreement upon.
17 MR. HART: I'd like to head back to my office because
18 I spent my entire time chasing down Dr. Shomer.
19 THE COURT: Okay. All right.
20 MR. HART: And I didn't get my lunch.
21 MS. FLECK: And, I mean, Marty and I spoke yesterday
22 about the ones that I gave you.
23 THE COURT: Right.
24 MS. FLECK: And so it was my understanding that his
25 only objections were the things that he had.

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1 MR. HART: They were in there, and like I said, I
2 wanted to look at regarding the phone call.

3 THE COURT: Okay. No, I get it. The only -- the
4 only thing I would say is what I wanted when you come back
5 tomorrow, it's these are the five that we need to have an
6 argument about. I don't want to sit there and go through all
7 40 of them because you guys haven't got together on them.

8 MR. HART: And I will.

9 THE COURT: So whatever you have a disagreement on is
10 fine. Just kind of tab those, and then if you get them
11 situated tonight that you know you have these that are all
12 agreed upon, then, State, you can e-mail those over and include
13 Marty on that as well so I have a clean copy of what I now know
14 is agreed upon, and then we'll argue about whatever we need to
15 argue about tomorrow.

16 MS. FLECK: Okay. So just to be clear, the one where
17 you -- the felony murder is a different theory of first-degree
18 murder and the a wilful, deliberate and premeditated murder is
19 a type of murder, those two are going to replace mine --

20 THE COURT: Well, I'm proposing to do it that way.

21 MS. FLECK: That's fine.

22 THE COURT: I mean, those are the two that deal with
23 you can't find somebody guilty of premeditated first-degree
24 murder on a conspiracy aider-and-abettor theory unless, and
25 then they deal with you can't find somebody guilty -- they

1 define and tell you you can't find somebody guilty of felony
2 murder unless under a conspiracy and aider-and-abettor theory.

3 MS. FLECK: Okay. So I'm going to do that now. I'm
4 just going to take out the one that I had and put in your two.

5 THE COURT: Yeah, that's fine.

6 MS. FLECK: That's great with us, and then the other
7 one --

8 THE COURT: Is just an eyewitness identification
9 instruction.

10 MS. FLECK: It does read a wilful, deliberate and
11 premeditated murder is a type of murder of the first-degree and
12 a specific offense crime.

13 MR. GIORDANI: Intent.

14 THE COURT: Well, I didn't change that.

15 MR. GIORDANI: And that was an error --

16 MS. FLECK: I think it does read --

17 THE COURT: I was out and pasting out of yours.

18 So --

19 MR. GIORDANI: Yeah, I saw that in ours too.

20 THE COURT: Okay.

21 MR. HART: So it's --

22 THE COURT: It should be specific intent.

23 MR. GIORDANI: Right.

24 MS. FLECK: So we'll change that. Okay.

25 THE COURT: Okay.

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1 MS. FLECK: And then add this one, that's great.
2 Then do you think I would need to not add that Nay language
3 to -- oh, this -- okay. Nevermind. This one actually is here.

4 THE COURT: Add what language to which one?

5 MS. FLECK: Well, because later we have, There are
6 certain kinds of murder in the first-degree which carry with
7 them conclusive evidence of malice aforethought.

8 THE COURT: Yeah, look, I mean, I want to get them
9 all into an order --

10 MS. FLECK: Okay --

11 THE COURT: That hopefully makes some sense for the
12 jury. That doesn't mean that -- with these kind of
13 instructions and with conspiracy theory and charges and then
14 with aider and abettor theories you can't get them all in a way
15 that just makes complete sense and with deadly weapon
16 enhancements, you know, because part and parcels of things are
17 occurring earlier in the instructions, and then they may be
18 kind of repeated later on, but --

19 MS. FLECK: Wait. I had aider and abettor, yeah?
20 Now that I'm thinking about it, is there anything even in here?
21 Okay. I've got to look through them again. I'm having a
22 moment.

23 THE COURT: Yeah, it's at the end of the conspiracy
24 before the robbery definition starts.

25 MS. FLECK: Okay. Good. Okay. And then eyewitness

1 identification, maybe I should put this back by credibility.

2 THE COURT: I'm going to have Molly e-mail all those
3 things to you guys as well. I think I told her to, but I
4 didn't. Let me see.

5 MS. FLECK: Have her -- you're going to have her
6 e-mail the new ones, and then I can add them?

7 THE COURT: Yeah, there's three.

8 MS. FLECK: Okay.

9 THE COURT: I know I told her to print them out and
10 bring them in, but I'll have her e-mail those as well.

11 MS. FLECK: Okay.

12 MR. GIORDANI: Thank you.

13 MS. FLECK: Then, Marty, just contact me tonight if
14 there's --

15 MR. HART: Yeah, if I do -- you get your e-mail to
16 your phone, your work e-mail, right?

17 MS. FLECK: Now I do, yeah.

18 MR. HART: Okay. Now, you do?

19 MS. FLECK: Well, I just -- it was broken. I just
20 fixed it today.

21 MR. HART: Oh, okay. Sorry. Because I lost that
22 ability somehow when they upgraded.

23 MS. FLECK: Yeah, okay.

24 MR. HART: It was a hell of an upgrade.

25 MS. FLECK: Okay. So 11 o'clock to do jury

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1 instructions, 1 o'clock for --

2 THE COURT: 10:30 let's say.

3 MS. FLECK: 10:30.

4 THE COURT: Because I need to get somewhere at
5 11:30 just over the lunch hour. It's just an early lunch hour
6 thing. So if you guys get here at 10:30, my calendar shouldn't
7 be that long tomorrow. So we should --

8 MR. HART: You want to start at 10:15?

9 THE COURT: What's that?

10 MR. HART: Want us here at 10:15?

11 THE COURT: Sure.

12 MR. HART: Okay.

13 MS. FLECK: 10:15, okay.

14 THE COURT: If you're missing me, come early.

15 MR. HART: Thank you, Your Honor.

16 (Proceedings recessed for the evening 3:28 p.m.)

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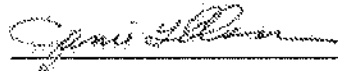
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ATTEST: I do hereby certify that I have truly and correctly
transcribed the audio/video proceedings in the above-entitled
case.



Janie L. Olsen
Transcriber

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EXHIBIT D

Identifying the Culprit

Assessing Eyewitness Identification

Committee on Scientific Approaches to Understanding and Maximizing
the Validity and Reliability of Eyewitness Identification
in Law Enforcement and the Courts

Committee on Science, Technology, and Law

Policy and Global Affairs

Committee on Law and Justice

Division of Behavioral and Social Sciences and Education

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Preface

Eyewitness identifications play an important role in the investigation and prosecution of crimes, but they have also led to erroneous convictions. In the fall of 2013, the Laura and John Arnold Foundation called upon the National Academy of Sciences (NAS) to assess the state of research on eyewitness identification and, when appropriate, make recommendations. In response to this request, the NAS appointed an ad hoc study committee that we have been privileged to co-chair.

The committee's review analyzed relevant published and unpublished research, external submissions, and presentations made by various experts and interested parties. The research examined fell into two general categories: (1) basic research on vision and memory and (2) applied research directed at the specific problem of eyewitness identification.

Basic research has progressed for many decades, is of high quality, and is largely definitive. Research of this category identifies principled and insurmountable limits of vision and memory that inevitably affect eyewitness accounts, bear on conclusions regarding accuracy, and provide a broad foundation for the committee's recommendations.

Through its review, the committee came to recognize that applied eyewitness identification research has identified key variables affecting the accuracy of eyewitness identifications. This research has been instrumental in informing law enforcement, the bar, and the judiciary of the frailties of eyewitness identification testimony. Such past research has appropriately identified the variables that may affect an individual's ability to make an accurate identification. However, given the complex nature of eyewitness identification, the practical difficulties it poses for experimental research,

and the still ongoing evolution of statistical procedures in the field of eyewitness identification research, there remains at the time of this review substantial uncertainty about the effect and the interplay of these variables on eyewitness identification. Nonetheless, a range of practices has been validated by scientific methods and research and represents a starting place for efforts to improve eyewitness identification procedures.

In this report, the committee offers recommendations on how law enforcement and the courts may increase the accuracy and utility of eyewitness identifications. In addition, the committee identifies areas for future research and for collaboration between the scientific and law enforcement communities.

We are indebted to those who addressed the committee and to those who submitted materials to the committee, and we are particularly indebted to the members of the committee. These individuals devoted untold hours to the review of materials, meetings, conference calls, analyses, and report writing. This report is very much the result of the enormous contributions of an engaged community of scholars and practitioners who reached their findings and recommendations after many vigorous and thoughtful discussions. We also would like to thank the project staff, Karolina Konarzewska, Steven Kendall, Arlene Lee, and Anne-Marie Mazza, and editor Susanna Carey for their dedication to the project and to the work of the committee.

Thomas D. Albright and Jed S. Rakoff
Committee Co-chairs

The Legal Framework for Assessment of Eyewitness Identification Evidence

The admissibility of eyewitness testimony at a criminal trial may be challenged on the basis of procedures used by law enforcement officials in obtaining the eyewitness identification. The U.S. Supreme Court, in its 1977 ruling in *Manson v. Brathwaite*, set out the modern test under the Due Process Clause of the U.S. Constitution that regulates the fairness and the reliability of eyewitness identification evidence.¹ The Court also specified five reliability factors, discussed below, that a judge must consider when deciding whether to exclude the identification evidence at trial.²

Although the constitutional standards for assessing eyewitness testimony have remained unchanged in the decades since the *Manson v. Brathwaite* decision, a body of research has shed light on the extent to which each of the five reliability factors supports a reliable eyewitness identification. Research has cast doubt, for instance, on the belief that the apparent certainty displayed in the courtroom by an eyewitness is an indicator of an accurate identification, and has found that a number of factors may enhance the certainty of the eyewitness.

Recently, state courts and lower federal courts have taken the lead in developing standards relating to the admissibility of expert evidence, jury instructions, and judicial notice of scientific evidence. Some states have adopted more stringent standards for regulating eyewitness identification evidence than the U.S. Constitution requires, either by legislative statutes or by state court decisions, and have modified or entirely supplanted the *Man-*

¹*Manson v. Brathwaite*, 432 U.S. 98, 113–114 (1977).

²*Manson v. Brathwaite* at 114.

son v. Brathwaite test to take account of advances in the growing body of scientific research. This chapter describes the changes in the legal standards for eyewitness identification and explores the relationship between the state of the scientific research and the law regulating procedures and evidence.

EYEWITNESS EVIDENCE AND DUE PROCESS UNDER THE U.S. CONSTITUTION

Beginning with rulings in 1967, the U.S. Supreme Court set out a standard under the Due Process Clause of the Fourteenth Amendment for reviewing eyewitness identification evidence.³ In *Manson v. Brathwaite*, the Court emphasized that “reliability is the linchpin in determining the admissibility of identification testimony.”⁴ First, the Court instructed judges to examine whether the identification procedures were unnecessarily suggestive. Second, to assess whether an identification is reliable, judges were instructed to examine the following five factors: (1) the opportunity of the witness to view the criminal at the time of the crime; (2) the witness’ degree of attention; (3) the accuracy of the witness’ prior description of the criminal; (4) the level of certainty demonstrated at the confrontation; and (5) the time between the crime and the identification procedure.⁵ The five factors were drawn from earlier judicial rulings and not from scientific research.⁶

Eyewitness identification evidence continues to be litigated primarily under the flexible two-part *Manson v. Brathwaite* Due Process test.⁷ It is

³In *Stovall v. Denno*, 388 U.S. 293, 302 (1967), the U.S. Supreme Court first set out a due process rule asking whether identification procedures used were “so unnecessarily suggestive and conducive to irreparable mistaken identification.” The Court elaborated that rule in decisions such as *Simmons v. U.S.*, 390 U.S. 377, 384 (1968) and *Foster v. California*, 394 U.S. 440, 442 (1969), and then adopted an approach setting out “reliability” considerations in *Neil v. Biggers*, 409 U.S. 188 (1972). For a description of the development of this doctrine, see, e.g., B. L. Garrett, “Eyewitnesses and Exclusion,” *Vanderbilt Law Review* 65(2): 451, 463–467 (2012).

⁴*Brathwaite*, 423 U.S. at 114.

⁵*Id.* at 114.

⁶*Id.* at 114. Justice Thurgood Marshall dissented, noting studies indicated that unnecessarily suggestive eyewitness identifications had resulted in “repeated miscarriages of justice resulting from juries’ willingness to credit inaccurate eyewitness testimony.” 423 U.S. at 125–27 (Marshall, J., dissenting).

⁷Due process is the most important constitutional right that arises in challenges to eyewitness identification, but rights under the Fourth and Sixth Amendments also may be implicated. The Fourth Amendment protects individuals “against unreasonable searches and seizures,” and the probable cause typically required to seize and arrest a suspect may arise from an eyewitness identification. U.S. Const. Amend. IV. The few lower courts to address the question are divided on whether probable cause is needed to place individuals in a live lineup procedure. *Bichunick v. Felicetta*, 441 F.2d 228, 230 (2d Cir. 1971); but see, e.g., *Wise v. Murphy*, 275 A.2d 205, 212–15 (D.C. 1971); *State v. Hall*, 461 A.2d 1155 (N.J. 1983). In contrast,

important to note, however, that the vast majority of criminal cases are settled through plea bargaining. The role that evidence type and strength play in plea bargaining is complex and necessarily difficult to study. Because eyewitness identification evidence may never be tested at trial, it is doubly important for lawyers and judges to understand the credibility of the proffered evidence.⁸

In the most recent U.S. Supreme Court ruling addressing a challenge to an eyewitness identification (*Perry v. New Hampshire*),⁹ the Court ruled that a due process analysis was not triggered. In that case, while the police were obtaining a description of the suspect, the eyewitness looked out of the apartment window and recognized the suspect standing outside. The police had not intended to conduct an identification procedure. In those circumstances, the Court ruled that the Due Process Clause does not require a preliminary judicial review of the reliability of an eyewitness identification.¹⁰

probable cause is not required to place a person's photograph in an array, since doing so does not involve a seizure. However, courts may also rule that an illegal stop or seizure renders a subsequent identification inadmissible, absent an "independent" source for the courtroom identification. *U.S. v. Crews*, 445 U.S. 463, 473 (1980).

In addition, the Sixth Amendment provides that, in all criminal prosecutions, the accused has the right "to have the assistance of counsel for his defense." In *United States v. Wade*, the Supreme Court held that, once indicted, a person has a right to have a lawyer present at a lineup, reasoning that the right to counsel applies at all "critical" stages of the criminal process. 388 U.S. 218, 235-37 (1967). However, the Court subsequently held that a photo array procedure, of the type now most commonly used by police agencies, does not implicate the *Wade* right to counsel. *U.S. v. Ash*, 413 U.S. 300, 321 (1973).

⁸As the current report demonstrates, a comparative consideration of evidence value is particularly important in the case of eyewitness identification evidence. Similar consideration should be given when other adjudication mechanisms are used (e.g., bench trials).

⁹*Perry v. New Hampshire*, 132 S. Ct. 716, 718 (2012). In that case, the eyewitness happened to look out her window and see the suspect standing at the crime scene where the police had told him to wait. The Court held that the Due Process Clause did not regulate such a situation, since the police did not intend to conduct an identification procedure. *Id.* at 729. The Court indicated that the reliability of the evidence could be addressed by federal and state evidentiary standards, and added: "In appropriate cases, some States also permit defendants to present expert testimony on the hazards of eyewitness identification evidence." *Id.*

¹⁰Justice Sotomayor dissented, arguing, "Our due process concern . . . arises not from the act of suggestion, but rather from the corrosive effects of suggestion on the reliability of the resulting identification," and the manner in which "[a]t trial, an eyewitness' artificially inflated confidence in an identification's accuracy complicates the jury's task of assessing witness credibility and reliability." *Perry*, 132 S. Ct. at 731-32 (Sotomayor, J., dissenting). Justice Sotomayor also emphasized: "A vast body of scientific literature has reinforced every concern our precedents articulated nearly a half-century ago." *Id.* at 738.

STATE LAW REGULATION OF EYEWITNESS EVIDENCE

State Supreme Court Standards

Several state supreme courts have altered or supplemented the federal *Manson v. Brathwaite* due process rule to focus more on the effects of suggestion, to emphasize certain factors in specific circumstances,¹¹ or to focus on showup identifications, in particular.¹² New Jersey and Oregon have now supplemented the *Manson v. Brathwaite* test with separate state law standards regulating eyewitness identification evidence.

In 2011, the New Jersey Supreme Court issued a unanimous decision in *State v. Larry R. Henderson* that revised the legal framework for admitting eyewitness identification evidence and directed that revised jury instructions be prepared to help jurors evaluate such evidence.¹³ The new framework was based on the record of hearings before a Special Master that considered an extensive review of scientific research regarding eyewitness identifications.¹⁴ The legal framework established by the *Henderson* opinion relies on pretrial hearings to review eyewitness evidence and more comprehensive jury instructions at trial.¹⁵ To obtain a pretrial hearing, a defendant must show some evidence of suggestiveness related to either estimator or system

¹¹ See *State v. Ramirez*, 817 P.2d 774, 780–81 (Utah 1991) (altering three of the reliability factors to focus on effects of suggestion); *State v. Marquez*, 967 A.2d 56, 69–71 (Conn. 2009) (adopting criteria for assessing suggestion); *Brodus v. State*, 614 S.E.2d 766, 771 & n.8 (Ga. 2005) (rejecting eyewitness certainty jury instruction); *State v. Hunt*, 69 P.3d 571, 576 (Kan. 2003) (adopting Utah's five factor "refinement" of the *Biggers* factors); *State v. Cronedy*, 727 A.2d 457, 467 (N.J. 1999) (requiring, when applicable, instruction on cross-racial misidentifications).

¹² See, e.g., *State v. Dibase*, 285 Wis.2d 143, 166 (Wis. 2005); *Commonwealth v. Johnson*, 650 N.E.2d 1257, 1261 (Mass. 1995); *People v. Adams*, 423 N.E.2d 379, 383–84 (N.Y. 1981).

¹³ *State v. Henderson*, 27 A.3d 872 (N.J. 2011). The *Henderson* opinion described criticisms of the *Manson v. Brathwaite* test, including that suggestion may itself affect the seeming "reliability" of the identification. *Id.* at 877–78. For examples of scholarly criticism of the *Manson v. Brathwaite* test in light of scientific research, see, e.g., G. L. Wells and D. S. Quinlivan, "Suggestive Eyewitness Identification Procedures and the Supreme Court's Reliability Test in Light of Eyewitness Science: 30 Years Later," *Law and Human Behavior* 33(1): 1, 16 (February 2009); T. P. O'Toole and G. Shay, "*Manson v. Brathwaite* Revisited: Towards a New Rule of Decision for Due Process Challenges to Eyewitness Identification Procedures," *Valparaiso University Law Review* 41(1): 109 (2006).

¹⁴ See Report of the Special Master at 16–17, *State v. Henderson*, No. A-8-08 (N.J. June 18, 2011, available at: [http://www.judiciary.state.nj.us/pressrel/HENDERSON%20FINAL%20BRIEF%20.PDF%20\(00621142\).pdf](http://www.judiciary.state.nj.us/pressrel/HENDERSON%20FINAL%20BRIEF%20.PDF%20(00621142).pdf)).

¹⁵ In the companion case, *State v. Chen*, 27 A.3d 930, 932 (N.J. 2011), the New Jersey Supreme Court took an approach that departed from that of the U.S. Supreme Court in *Perry*, ruling that the defendant may be entitled to a hearing in a case in which the eyewitness identified the defendant using social media, nor a police-orchestrated identification procedure,

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variables that could lead to mistaken identification.¹⁶ At the pretrial hearing, the State must offer proof that the eyewitness identification is reliable. However, the ultimate burden of proving a “very substantial likelihood of irreparable misidentification” is on the defendant.¹⁷

In July 2012, the New Jersey Supreme Court released an expanded set of jury instructions and related rules that govern the use of suggestive identifications.¹⁸ The jury instructions state that “[r]esearch has shown that there are risks of making mistaken identifications” and noted that eyewitness evidence “must be scrutinized carefully.”¹⁹ Human memory involves three stages—encoding, storage, and retrieval. At “each of these stages, memory can be affected by a variety of factors.”²⁰ The Court identified a set of factors that jurors should consider when deciding whether eyewitness identification evidence is reliable, including estimator variables (e.g., stress, exposure duration, weapon focus, distance, lighting, intoxication, disguises or changed appearance of the perpetrator, time since the incident, and cross-racial effects) and system variables (e.g., lineup composition, fillers, use of multiple viewings, presence of feedback, use of double-blind procedures, and use of showup identifications). The instructions also noted the possible influence of outside opinions, descriptions, or identifications by other witnesses, and photographs or media accounts.²¹

In 2012, in *Oregon v. Lawson*, the Oregon Supreme Court established a new procedure for evaluating the admissibility of eyewitness identifications. In a unanimous decision, the Court found “serious questions” about the reliability of eyewitness identification, citing research conducted over the past 30 years.²² The Court determined that the *Manson v. Brathwaite* two-step process for weighing eyewitness identification “does not accomplish its goal of ensuring that only sufficiently reliable identifications are admitted into evidence,” because it relies on an eyewitness’ self-reports to determine whether the threshold level of suggestiveness is reached, rendering the identification unreliable.²³ The Court set forth a process that requires the trial court to examine whether investigators used “suggestive”

¹⁶ *Henderson*, 27 A.3d at 878.

¹⁷ *Id.*

¹⁸ New Jersey Criminal Model Jury Instructions, *Identification* (July 19, 2012), available at: http://www.judiciary.state.nj.us/pressrel/2012/jury_instruction.pdf; New Jersey Court Rule 3:11, *Record of an Out-of-Court Identification Procedure* (July 19, 2012), available at: http://www.judiciary.state.nj.us/pressrel/2012/new_rule.pdf; New Jersey Court Rule 3:13-3, *Discovery and Inspection* (July 19, 2012), available at: http://www.judiciary.state.nj.us/pressrel/2012/rev_rule.pdf.

¹⁹ See New Jersey Criminal Model Jury Instructions, *Identification*, *supra* at 2.

²⁰ *Id.*

²¹ *Id.* at 9.

²² *State v. Lawson*, 352 Ore. 724 (Or. 2012).

²³ *Id.* at 746–748.

identification procedures and whether other factors, such as estimator variables, may have affected the reliability of the identification.²⁴ The Court ruled that “intermediate remedies,” including the use of expert testimony, should be available even if the trial judge concludes that the identification is admissible. The Court also briefly noted that judges might use “case-specific jury instructions.”²⁵

Other states continue to explore possible changes to the judicial review of eyewitness identification evidence. In 2013, the Massachusetts Supreme Judicial Court Study Group on Eyewitness Identification offered guidance on the adjudication of eyewitness identification evidence.²⁶ The report adopted *Lawson’s* approach of taking judicial notice of “certain scientifically-established facts about eyewitness identification.”²⁷ The report recommended that trial judges conduct pretrial hearings to determine whether suggestive identification procedures were used, and if so, whether these procedures impaired the reliability of identification evidence. Pretrial hearings would consider the effects of both estimator variables (relating to viewing at the crime scene) and system variables (relating to the lineup or showup procedures) on the identification. The report also recommended that the state adopt a set of recommended practices for conducting identification procedures, create new model jury instructions on eyewitness identifications, and set limitations on the admissibility of certainty statements and in-court identifications.²⁸

State Statutes Regulating Identification Procedures

Judicial rulings regulating admissibility of eyewitness evidence in the courtroom do not specify the identification procedures to be used by law enforcement officials. However, 14 states have adopted legislation regarding eyewitness identification procedures. Of the 14, 11 states (Connecticut, Illinois, Maryland, North Carolina, Ohio, Texas, Virginia, West Virginia, Wisconsin, Utah, and Vermont) have enacted statutes directly requiring that

²⁴*Id.* at 747–748, 755–756.

²⁵*Id.* at 759, 763.

²⁶See Massachusetts Supreme Judicial Court Study Group on Eyewitness Evidence, *Report and Recommendations to the Justices* (2013).

²⁷*Id.* at 48.

²⁸*Id.* at 28. In the courtroom, the eyewitness can easily see where the defendant is sitting. Thus, in-court identifications do not reliably test an eyewitness’ memory. Nevertheless, courts have shown great tolerance of in-court identifications, deeming them based on “independent” memory, and even following suggestive out-of-court procedures. *Garrett, Eyewitnesses and Exclusion, supra*. For example, the New York Court of Appeals ruled that “[e]xcluding evidence of a suggestive showup does not deprive the prosecutor of reliable evidence of guilt. The witness would still be permitted to identify the defendant in court if that identification is based on an independent source.” *People v. Adams*, 423 N.E.2d 379, 384 (N.Y. 1981).

law enforcement officials adopt written procedures for eyewitness identifications and regulating the particular procedures to be used.²⁹ Three more states (Georgia, Nevada, and Rhode Island) have passed statutes recommending further study, tasking a group with developing best practices, or requiring some form of written policy.³⁰

State statutes typically assert that a trial judge may consider the failure to follow the prescribed procedures as a factor in assessing admissibility and informing the jury. The statutes rarely require that a trial judge exclude such identification evidence from consideration by the jury. However, some of the more detailed statutes, such as those in Ohio, North Carolina, and West Virginia, require that law enforcement officials use particular practices (e.g., eyewitness instructions, a blind administrator). Other statutes require adherence to model policies or guidelines. Utah requires that lineup procedures be recorded. Some jurisdictions and departments also have voluntarily adopted guidelines or policies regulating eyewitness identifications.³¹ Several state courts have issued rulings regulating lineup practices (e.g., New Jersey's Supreme Court has required documentation of identification procedures).³²

AIDING JURORS IN ASSESSMENT OF EYEWITNESS TESTIMONY

Expert Witness Testimony Regarding Eyewitness Identification

The standards for assessing the admissibility of testimony by expert witnesses have undergone great changes in the past two decades. Before 1993, the *Frye* test allowed scientific expert testimony in federal courts if it met the standard of "general acceptance" in the relevant scientific community.³³ In 1993, the Supreme Court, in *Daubert v. Merrell Dow*

²⁹See Conn. Gen. Stat. § 54-1p (West 2012); 725 Ill. Comp. Stat. § 5/107A-5 (West 2003); Md. Code Ann., Pub. Safety § 3-506 (West 2007); N.C. Gen. Stat. § 15A-284.52 (West 2007); Ohio Rev. Code Ann. § 2933.83 (West 2010); Tex. Code Crim. Proc. Ann. art. 38.20 (West 2011); Utah Code Ann. § 77-8-4 (West 1980); Va. Code Ann. § 19.2-390.02 (West 2005); Va. Code Ann. § 9.1-102.54; 13 V.S.A. § 5581; W. Va. Code Ann. § 62-1E-1 (West 2013); Wis. Stat. § 175.50 (West 2005).

³⁰GA. H.R. 352, 149th Gen. Assem., Reg. Sess. (April 20, 2007); Nev. Rev. Stat. § 171.1237 (West 2011); R.I. Gen. Laws § 12-1-16 (West 2012); 2010 Leg. Reg. Sess. (Vt. 2010).

³¹See, e.g., John J. Farmer, Jr., Attorney General of the State of New Jersey, "Letter to All County Prosecutors: Attorney General Guidelines for Preparing and Conducting Photo and Live Lineup Identification Procedures" (April 18, 2001), available at: <http://www.state.nj.us/lps/dc/aguide/photoid.pdf>; CALEA Standards for Law Enforcement Agencies: 42.2.11 Lineups, available at: <http://www.calea.org/content/standards-titles>; International Association of Chiefs of Police, Model Policy: Eyewitness Identification (2010).

³²*State v. Delgado*, 188 N.J. 48, 63-64, 902 A.2d 888 (2006).

³³*Frye v. United States*, 54 App. D.C. 46, 293 F. 1013 (1923).

Pharmaceuticals, Inc.,³⁴ ruled that, under Federal Rule of Evidence 702, a “trial judge must ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable.”³⁵ Judges determine reliability by assessing the scientific foundation of the expert’s testimony prior to trial, so that “*evidentiary reliability* will be based upon *scientific validity*.”³⁶ Many states have adopted *Daubert*, and many of those that have not formally adopted *Daubert* have revised their *Frye* test to adopt much of the *Daubert* standard. In turn, Federal Rule of Evidence 702 has been revised to incorporate the holding in *Daubert*.³⁷ Federal and state courts remain divided on whether expert testimony on eyewitness identifications is admissible under *Daubert* or *Frye*, and on the proper exercise of trial court discretion when deciding whether to admit such expert testimony. Appellate rulings emphasize that a trial judge should use discretion when deciding whether proffered expert evidence satisfies the *Daubert* or *Frye* standards. An increasing number of rulings emphasize the value of presenting expert testimony regarding eyewitness identification. Some courts have held that it can be an abuse of discretion for a trial judge to bar the defense from admitting such testimony.³⁸ Detailed descriptions of the relevant scientific research findings accompany such decisions.³⁹ There are also many federal and state courts that continue to follow the traditional approach, emphasizing that credibility of eyewitnesses is a matter within the “province of the jury” and insisting that information regarding valid scientific research in this area will not assist the jury in its task.⁴⁰

³⁴509 U.S. 579 (1993).

³⁵*Id.* at 589.

³⁶*Id.* at 590 n.9.

³⁷Fed. R. Evid. 702. Rule 702 now provides:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.

³⁸See, e.g., *Tillman v. State*, 354 S.W.3d 425, 441 (Tex. Crim. App. 2011); *People v. LeGrand*, 835 N.Y.S.2d 523, 524 (2007); *State v. Clopton*, 223 P.3d 1103, 1117 (Utah 2009); *U.S. v. Smithers*, 212 F.3d 306, 311–14 (6th Cir. 2000).

³⁹See, e.g., *State v. Copeland*, 226 S.W.3d 287, 299–300 (Tenn. 2007); *Tillman*, 354 S.W.3d at 441; *Clopton*, 223 P.3d at 1108.

⁴⁰For scholarly examination of this case law, see, e.g., “The Province of the Jurist: Judicial Resistance to Expert Testimony on Eyewitnesses as Institutional Rivalry,” *Harvard Law Review* 126(8): 2381 (2013); R. Simmons, “Conquering the Province of the Jury: Expert Testimony and the Professionalization of Fact-Finding,” *University of Cincinnati Law Review* 74: 1013 (2006); G. Vallas, “A Survey of Federal and State Standards for the Admission of Expert Testimony on the Reliability of Eyewitnesses,” *American Journal of Criminal Law* 39(1): 97 (2011).

The trend is toward greater acceptance of expert testimony regarding the factors that may affect eyewitness identification. In a 2012 decision, the Connecticut Supreme Court disavowed earlier rulings restricting expert testimony and stated that such rulings are now “out of step with the widespread judicial recognition that eyewitness identifications are potentially unreliable in a variety of ways unknown to the average juror.”⁴¹ Similarly, the Pennsylvania Supreme Court recently held that expert testimony on eyewitness identifications was no longer *per se* inadmissible, emphasizing that “courts in 44 states and the District of Columbia have permitted such testimony at the discretion of the trial judge,” and that “all federal circuits that have considered the issue, with the possible exception of the 11th Circuit, have embraced this approach.”⁴² As the Seventh Circuit Court of Appeals recently explained:

It will not do to reply that jurors know from their daily lives that memory is fallible. The question that social science can address is how fallible, and thus how deeply any given identification should be discounted. That jurors have beliefs about this does not make expert evidence irrelevant; to the contrary, it may make such evidence vital, for if jurors’ beliefs are mistaken then they may reach incorrect conclusions. Expert evidence can help jurors evaluate whether their beliefs about the reliability of eyewitness testimony are correct.⁴³

Courts also have allowed expert witnesses to testify about particular issues concerning eyewitness identifications, such as cross-race effects, stress, weapons focus, suggestive lineup procedures, and the like.⁴⁴ Rarely have experts conducted eyewitness identification research related to the specific case before the court. However, in one such case, in which an experiment

⁴¹*State v. Guilbert*, 306 Conn. 218, 234 (Conn. 2012). Prior to that decision, the Connecticut Supreme Court had long ruled that “the reliability of eyewitness identification is within the knowledge of jurors and expert testimony generally would not assist them in determining the question” (*State v. Kemp*, *supra* 199 Conn. at 473, 477), and that factors affecting eyewitness memory are “nothing outside the common experience of mankind” (*State v. McGleendon*, *supra* 248 Conn. at 572, 586).

⁴²*Com. v. Walker*, 2014 WL 2208139 *13 (Pa. 2014) (collecting authorities).

⁴³*U.S. v. Bartless*, 567 F.3d 901, 906 (7th Cir. 2009). Other federal courts have found it a proper exercise of discretion to exclude expert testimony on eyewitness identifications. See, e.g., *United States v. Lumpkin*, 192 F.3d 280, 289 (2d Cir. 1999). Most federal courts treat the subject as one of considerable trial discretion; see, e.g., *United States v. Rodriguez-Berrios*, 523 F.3d 55, 71–72 (1st Cir. 2006). For a survey of federal decisions, see Lauren Tallent, Note, *Through the Lens of Federal Evidence Rule 403: An Examination of Eyewitness Identification Expert Testimony Admissibility in the Federal Circuit Courts*, Washington & Lee Law Review 68 (2): 765 (2011); see also Walker, 2014 WL 2208139 *13.

⁴⁴See, e.g., *Loftus, Doyle & Dysart* at § 14-8[a]–[b] p. 408 n. 41–42; 410, n. 53 (5th Edition, 2013) (collecting cases).

was conducted with the actual photo array used in the case, the federal courts found expert testimony admissible where it was directed not only to general research, but also by the question of whether suggestive procedures affected the identification in that case.⁴⁵

Expert witnesses who explain the complications of eyewitness identification can be expensive. Most criminal defendants are indigent and cannot afford such assistance.⁴⁶ In *Ake v. Oklahoma*, the Supreme Court held that an indigent defendant has a constitutional due process right to assistance by an expert witness only if that expert assistance is so crucial to the defense (or such a "significant factor") that its denial would deprive the defendant of a fundamentally fair trial.⁴⁷ In federal courts, funding for expert witnesses is available, and requests by indigent defendants are common.⁴⁸ In state courts, such assistance is uncommon, especially in state courts that rarely find denial of expert assistance on eyewitness matters to be a due process violation.

Expert testimony on eyewitness memory and identifications has many advantages over jury instructions as a method to explain relevant scientific framework evidence to the jury: (1) Expert witnesses can explain scientific research in a more flexible manner, by presenting only the relevant research to the jury; (2) Expert witnesses are familiar with the research and can describe it in detail; (3) Expert witnesses can convey the state of the research at the time of the trial; (4) Expert witnesses can be cross-examined by the other side; and (5) Expert witnesses can more clearly describe the limitations of the research. The benefits of expert testimony are offset somewhat by the expense. However, conflicting testimony by opposing experts may lead to confusion among the jurors. Nonetheless, trial judges have discretion to determine whether the potential benefits of expert testimony outweigh the cost.

Jury Instructions Regarding Eyewitness Identification

Some courts restricting expert testimony have found jury instructions regarding the fallible nature of eyewitness identifications to be an acceptable substitute for expert testimony.⁴⁹ At the conclusion of a criminal trial,

⁴⁵*Newson v. McCabe*, 319 F.3d 301 (7th Cir. 2003).

⁴⁶See, e.g., Bureau of Justice Statistics, "Indigent Defense," available at: <http://www.bjs.gov/index.cfm?ty=pbdetail&cid=995>.

⁴⁷470 U.S. 68, 82–83 (1985). Even if an indigent defendant receives funding to retain an expert, the judge may ultimately decide that the expert testimony is not admissible at trial.

⁴⁸18 U.S.C. § 3006A(c)(1).

⁴⁹See, e.g., *U.S. v. Jones*, 689 F.3d 12, 20 (1st Cir. 2012). ("The judge was fully entitled to conclude that this general information could be more reliably and efficiently conveyed by instructions rather than through dueling experts.").

the trial judge can instruct jurors on the factors that may result in an erroneous identification while also offering instructions on the legal principles jurors must apply when assessing the factual record. Such instructions may be given when the witness testifies. Judges tend to rely on model or pattern instructions, because any departure from these standard instructions may be a ground for appellate reversal.

The New Jersey Supreme Court viewed jury instructions as preferable to expert testimony.⁵⁰ The New Jersey instructions adopted, following the *Henderson* decision, are by far the most detailed set of jury instructions regarding eyewitness identification evidence. Traditionally, instructions regarding eyewitness identifications have been brief and remind the jurors to consider the following: (1) the credibility of an eyewitness is like that of any other witness and (2) any eyewitness identification is part of the prosecutor's burden of proof in a criminal case.⁵¹ Many state courts have held that, although general jury instructions regarding credibility and the burden of proof are appropriate, more specific instructions on eyewitness identifications are considered an inappropriate judicial comment on the evidence.⁵² Following the U.S. Supreme Court's decision in *Manson v. Brathwaite*, some state courts supplemented their jury instructions by including the five reliability factors named by the Supreme Court.⁵³

In 1972, in *U.S. v. Telfaire*, the D.C. Circuit Court of Appeals adopted a set of influential model jury instructions to be used in appropriate federal cases involving eyewitness identifications.⁵⁴ The instructions emphasized the following:

You must consider the credibility of each identification witness in the same way as any other witness, consider whether he is truthful, and consider

⁵⁰The New Jersey Supreme Court indicated: "Jury charges offer a number of advantages: they are focused and concise, authoritative (in that juries hear them from the trial judge, not a witness called by one side), and cost-free; they avoid possible confusion to jurors created by dueling experts; and they eliminate the risk of an expert invading the jury's role or opining on an eyewitness' credibility." *Henderson*, 27 A.3d at 925.

⁵¹New Jersey courts used such instructions a decade before *Henderson*. See, e.g., *State v. Robinson*, 165 N.J. 32, 46–47 (N.J. 2000). Some states have also approved instructions informing the jury that there may be an "independent source" for an in-court identification. See, e.g., *State v. Cannon*, 713 P.2d 273, 281 (Ariz. 1985).

⁵²*Brodes v. State*, 279 Ga. 435, 439 & n.6 (Ga. 2005) (surveying state case law).

⁵³*State v. Tatum*, 219 Conn. 721 (1991).

⁵⁴*U.S. v. Telfaire*, 469 F.2d 552, 558 (D.C. Cir. 1972). Some federal courts follow that approach, while others adopt a "flexible approach." See, e.g., *United States v. Eals*, 835 F.2d 37, 41 (2d Cir. 1987). Some more recent federal model instructions include added detail, reflecting variables such as stress and cross-race identifications. See, e.g., Third Circuit Model Criminal Jury Instructions, 4:15 (Jan. 2014), available at: <http://www.ca3.uscourts.gov/sites/ca3/files/2013%20Chapter%204%20final%20revised.pdf>.

whether he had the capacity and opportunity to make a reliable observation on the matter covered in his testimony.⁵⁵

The *Telfaire* instructions departed from the brief traditional instruction by adding that the jury should consider factors related to the initial sighting, including "how long or short a time was available, how far or close the witness was, how good were lighting conditions, [and] whether the witness had had occasion to see or know the person in the past." The decision also noted that an identification is more reliable if the witness is able to pick the defendant out of a group, rather than at a showup, and that the jury should consider the length of time between the crime and the identification.⁵⁶

Some states have adopted cautionary instructions on specific issues related to eyewitness identification evidence. In *State v. Ledbetter*, the Connecticut Supreme Court ordered lower courts to use a special instruction in cases in which law enforcement failed to instruct the eyewitness that the perpetrator may or may not be present in a lineup.⁵⁷ The Georgia Supreme Court concluded in 2005 that one particular use of the *Manson v. Brathwaite* factors must no longer be permitted: "we can no longer endorse an instruction authorizing jurors to consider the witness' certainty in his/her identification as a factor to be used in deciding the reliability of that identification."⁵⁸ Other courts have done the same.⁵⁹ In 1999, the New Jersey Supreme Court ruled in *State v. Cromedy* that instructions on cross-racial identifications are required in certain cases.⁶⁰

Expert testimony on eyewitness memory and identifications appears to have many advantages when used as a method to explain relevant scientific framework evidence to the jury. However, when expert testimony is not available to the defense, jury instructions may be a preferable alternative means to inform the jury of the findings of scientific research in this area.

⁵⁵ *U.S. v. Telfaire*, 469 F.2d at 559.

⁵⁶ *Id.* at 558.

⁵⁷ *State v. Ledbetter*, 275 Conn. 534, 579–580 (2005) (The instruction reads, in part, "the individual conducting the procedure either indicated to the witness that a suspect was present in the procedure or failed to warn the witness that the perpetrator may or may not be in the procedure. Psychological studies have shown that indicating to a witness that a suspect is present in an identification procedure or failing to warn the witness that the perpetrator may or may not be in the procedure increases the likelihood that the witness will select one of the individuals in the procedure, even when the perpetrator is not present. Thus, such behavior on the part of the procedure administrator tends to increase the probability of a misidentification.")

⁵⁸ *Brodes*, 279 Ga. at 442.

⁵⁹ See, e.g., *supra* *Commonwealth v. Payne*, 426 Mass. 692 (1998); *State v. Romero*, 191 N.J. 59 (2007).

⁶⁰ *State v. Cromedy*, 158 N.J. 112 (1999); see also Innocence Project, "Know the Cases: McKinley Cromedy," available at: http://www.innocenceproject.org/Content/McKinley_Cromedy.php.

Brief instructions may not, however, provide sufficient guidance to explain the relevant scientific evidence to the jury, but lengthy instructions may be cumbersome and complex.

More research is warranted to better understand how best to communicate to jurors the factors that may affect the validity of eyewitness testimony and support a more sensitive discrimination of the strengths and weaknesses of eyewitness testimony in individual cases. Indeed, research findings on the effectiveness of jury instructions on assessment of eyewitness identification evidence have been mixed. In general, such studies find that jury instructions cause jurors to become more suspicious of all eyewitness identification evidence.⁶¹ A recent study of the effect of the New Jersey jury instructions used in *Henderson* found that the instructions reduced juror reliance on *both* strong and weak eyewitness identification evidence.⁶² Among the few studies finding that jury instructions succeed in increasing jurors' sensitivity to the strength of such evidence are those that study the effect of jury instructions presented before the eyewitness testimony rather than at the end of the case before deliberation.⁶³ Such studies also have examined instructions that use visual aids rather than rely on a judge's recitation of written instructions.⁶⁴ In addition, research studies might explore the use of videotape as an alternative way to present such information⁶⁵ and the effects of moving jury instructions to precede the introduction of the testimony by the eyewitness.

⁶¹For a review of this research, see K. A. Martire and R. I. Kemp, "The Impact of Eyewitness Expert Evidence and Judicial Instruction on Juror Ability to Evaluate Eyewitness Testimony," *Law and Human Behavior* 33:225–236, 226 (reviewing studies of jury instructions on eyewitness identification and concluding that increased skepticism and confusion is a common result); see also J. L. Devenport, C. D. Kimbrough, and B. L. Cutler, "Effectiveness of traditional safeguards against erroneous conviction arising from mistaken eyewitness identification," in *Expert testimony on the psychology of eyewitness identification*, ed. B. L. Cutler (New York: Oxford University Press, 2009), 51–68 (summarizing research studying the *Telfair* jury instruction and concluding that "cautionary jury instructions may be an ineffective safeguard against erroneous convictions resulting from mistaken eyewitness identifications,").

⁶²A. P. Papaïliou, D. V. Yokum, C. T. Robertson, "The Novel New Jersey Eyewitness Instruction Induces Skepticism But Not Sensitivity," August 2014, available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2475217.

⁶³See, e.g., N. B. Pawlenko, M. A. Safer, R. A. Wise, and B. Holfeld, "A Teaching Aid for Improving Jurors' Assessments of Eyewitness Accuracy," *Applied Cognitive Psychology* 27(2): 190–197. Other studies are reviewed in Martire and Kemp, *supra* note 105 at 226.

⁶⁴Pawlenko et al., *supra* note 107.

⁶⁵For an example of videotaped instructions, see Federal Judicial Center, *The Patent Process: An Overview for Jurors*, available at: <http://www.youtube.com/watch?v=ax7QHQTbKQE>.

CONCLUSION

The *Manson v. Brathwaite* test under the Due Process Clause of the U.S. Constitution set out the modern test that regulates the fairness and the reliability of eyewitness identification evidence. The test evaluates the "reliability" of eyewitness identifications using factors derived from prior rulings and not from empirically validated sources. It includes factors that are not diagnostic of reliability and treats factors such as the confidence of a witness as independent markers of reliability when, in fact, it is now well established that confidence judgments may vary over time and can be powerfully swayed by many factors. The best guidance for legal regulation of eyewitness identification evidence comes not, however, from constitutional rulings, but from the careful use and understanding of scientific evidence to guide fact-finders and decision makers.

EXHIBIT E

The Effect of Suspect-Filler Similarity on Eyewitness Identification Decisions: A Meta-Analysis

Ryan J. Fitzgerald, Heather L. Price, and Chris Orlet
University of Regina

Steve D. Charman
Florida International University

Eyewitness lineups are typically composed of a suspect (guilty or innocent) and fillers (known innocents). Meta-analytic techniques were used to investigate the extent to which manipulations of suspect-filler similarity influenced identification decisions. Compared with lineups with moderate or high similarity fillers, lineups with low similarity fillers were far more likely to elicit suspect identifications. This was true regardless of whether the suspect was guilty or innocent, underscoring the importance of ensuring the suspect does not stand out from the fillers. Although whether the lineup contained moderate or high similarity fillers had no reliable influence on guilty suspect identifications, a higher rate of innocent suspect misidentifications was found for moderate similarity lineups. The correspondence between the meta-analytic findings and current lineup construction recommendations is discussed.

Keywords: similarity, eyewitness identification, meta-analysis, filler, lineup composition

Numerous factors warrant consideration when constructing a lineup for eyewitness identification. One consideration is the degree to which fillers should resemble the police suspect. Appropriate selection of fillers is crucial for creating a fair lineup that balances the competing demands of minimizing false identification with maximizing culprit identification. A report published by an interdisciplinary panel of eyewitness experts recommends constructing lineups to ensure “the suspect does not unduly stand out” (Technical Working Group for Eyewitness Evidence, 2003, p. 32). Although this requirement could be met by using fillers who are highly similar in appearance to the suspect, in that same report investigators are further advised to “avoid using fillers that so closely resemble the suspect that a person familiar with the suspect might find it difficult to distinguish the suspect from the fillers” (p. 33). In essence, the suspect should be accompanied by fillers who are neither too dissimilar nor too similar.

The present meta-analysis was conducted to provide an overview of how suspect-filler similarity affects identification outcomes. A meta-analytic approach is helpful because the results of one study may, for example, be contingent upon the materials employed and might not generalize to all similarity manipulations

(for a discussion of the need for stimulus sampling, see Wells & Windschitl, 1999). Although the number of studies with direct manipulations of suspect-filler similarity is relatively small, there have been several instances in which similarity has been indirectly manipulated (e.g., by adopting different filler selection strategies). This meta-analytic review summarizes studies that often differ in their stated intentions yet each contain a common element—a comparison between lineups that differ in suspect-filler similarity. Synthesizing data collected from different sources allows for a better understanding of how suspect-filler similarity affects lineup choices across different identification conditions. A comprehensive understanding is especially desirable in the case of suspect-filler similarity manipulations, because researchers in this domain have yet to implement a standard method of objectively determining the similarity between two persons (Tredoux, 2002).

Filler Selection

A typical lineup is composed of a police suspect (who may be the culprit or may be an innocent suspect) and a set of fillers who are known to be innocent. The strategy employed to select fillers can influence the extent to which they resemble the suspect. Previous research has focused on two filler selection strategies: matching to the appearance of the suspect and matching to a description of the culprit.

Match to Appearance

The most commonly used method of selecting fillers is to match them to the appearance of the suspect (Wogalter, Malpass, & McQuiston, 2004). When this method is used, the critical concern is determining the appropriate level of similarity between the fillers and the suspect. Luus and Wells (1991) briefly mentioned the possibility of an optimal-similarity function in which the relation between suspect-filler similarity and lineup diagnosticity—that is, the likelihood that a suspect identification is of the

Ryan J. Fitzgerald, Heather L. Price, and Chris Orlet, Department of Psychology, University of Regina, Regina, Saskatchewan, Canada; Steve D. Charman, Department of Psychology, Florida International University.

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Correspondence concerning this article should be addressed to Ryan J. Fitzgerald, Department of Psychology, University of Regina, 3737 Wascana Parkway, Regina, SK, Canada, S4S 0A2. E-mail: fitzgerr@uregina.ca

culprit rather than an innocent suspect—would be characterized by an inverted U-shape. They suggested low similarity lineups would be expected to have low diagnosticity because they would induce false identifications, and high similarity lineups would also be expected to have low diagnosticity because having lineup members that look too similar to the suspect would impede correct identifications. Accordingly, an optimal lineup would include fillers who lie somewhere in the middle of the similarity spectrum.

Although fillers matched to the suspect were initially thought to protect innocent suspects from false identification (Lindsay & Wells, 1980), researchers have speculated that matching fillers to the suspect's appearance could "backfire" and actually increase the likelihood of innocent suspect misidentification (Clark, 2003). The first to note this possibility was Navon (1992), who pointed out that suspects and fillers are placed in appearance-matched lineups for different reasons. Unlike the fillers, who are selected because of their match to the suspect, innocent suspects are often in a lineup because of their match to a description of the culprit. As a consequence, the innocent suspect would be the lineup member who is most similar to the perpetrator and thus would also be the most likely to be misidentified. Wogalter, Marwitz, and Leonard (1992) proposed an alternative mechanism by which appearance-matched lineups could lead to innocent suspect misidentifications. Their reasoning rests on the notion that because suspects are the origin of suspect-matched lineups, they will be more similar to the fillers than any of the fillers are to each other. Therefore, innocent suspects might be chosen because they represent the central tendency of the lineup. Consistent with these predictions, an innocent suspect was chosen from one appearance-matched lineup at a higher rate than all the fillers combined (Clark & Tunnicliff, 2001).

Match to Description

Luus and Wells (1991) recommended using fillers who fit the eyewitness description of the culprit, but who also possess additional features that differ from those of the culprit. They hypothesized that matching on features in the description would protect innocent suspects from false identification and that allowing features not mentioned in the description to vary would facilitate recognition. Wells, Rydell, and Seelau (1993) provided convincing evidence in support of this claim. Compared with lineups composed of fillers who were low in similarity to the culprit, matching fillers to the witness description resulted in a 30% reduction in false identifications of the innocent suspect and had virtually no effect on correct identifications of the culprit. Moreover, compared with lineups composed of fillers high in similarity to the culprit, matching fillers to the description resulted in a 45% increase in correct identifications and an equivalent rate of false identifications. Thus, lineups with fillers of moderate similarity offered protection to innocent suspects without impeding culprit identifications.

The match-to-description advantage observed by Wells et al. (1993) provided empirical support for the theoretical framework proposed by Luus and Wells (1991). When eyewitnesses describe a culprit, they draw on recall memory. The function of a lineup is to give the witness an opportunity to provide new, recognition-based information. When the suspect matches the description and the fillers do not, witnesses need not rely on recognition memory

because the fillers can be discounted based on the incongruence between their appearance and what was recalled of the culprit's appearance. If the suspect happens to be innocent, the witness will be prone to false identification because the suspect will stand out from the fillers. Conversely, when fillers match the description, witnesses are forced to rely on recognition because all lineup members correspond with their recall. This explains the match-to-description procedure's protection of innocent suspects from false identification.

The advantage of matching to the witness description over matching to the suspect's appearance is explained by the complementary concepts of propitious heterogeneity and gratuitous similarity (Wells, 1993). Lineups with fillers who are matched only to the features in the description promote propitious heterogeneity, which is the idea that variations in the features not mentioned in the eyewitness description aid the process of recognition. Lineups with fillers who are matched to the appearance of the suspect promote gratuitous similarity, which is the idea that matching fillers to features of the suspect that are above and beyond those provided in the witness description eliminates important differences among the lineup members that are needed for recognition to operate effectively.

Although the match-to-description procedure showed early promise, it evinced little or no advantage over the match-to-appearance procedure in subsequent research. In two experiments, relative to appearance-matched lineups, description-matched lineups produced only nonsignificant increases in culprit identifications (Juslin, Olsson, & Winman, 1996; Lindsay, Martin, & Weber, 1994). Moreover, in one of those experiments (Lindsay et al., 1994), the innocent suspect misidentification rate was significantly higher in description-matched lineups than in appearance-matched lineups, an effect the authors attributed to witness descriptions that were too vague. In more recent experiments, filler selection strategy had no effect on culprit or innocent suspect choice rates (Darling, Valentine, & Memon, 2008; Tunnicliff & Clark, 2000). To explain the absence of a match-to-description benefit in culprit identifications, Tunnicliff and Clark suggested the fillers in their appearance-matched lineups might not have resembled the suspect to the same degree as those in the experiment by Wells et al. (1993). These findings suggest matching to the witness description is not always the most advantageous filler selection procedure.

Furthermore, the match-to-description procedure is not always a viable option. Luus and Wells (1991) outlined three situations in which the fillers should not be matched to the eyewitness description: (a) When the description does not correspond with the appearance of the suspect; (b) When the description is so specific that it would be impossible to find fillers who match it; and (c) When multiple eyewitnesses to the same event report descriptions that contradict one another. Another problem with the match-to-description procedure is that eyewitnesses often provide generic face descriptions, which can result in a lineup with fillers who fit the description yet look nothing like the suspect (Kohnken, Malpass, & Wogalter, 1996). Even more problematic is the situation in which eyewitnesses provide no information about the culprit's face. In one study (Lindsay et al., 1994), fewer than 10% of witnesses mentioned facial features in their description of a confederate to whom they had spoken for 3 min. Another obvious problem with the match-to-description procedure is that the eyewitness description could be inaccurate (Meissner, Sporer, &

(Schooler, 2007; Wells et al., 1998). These issues could partly explain why only 9% of respondents in a survey of police investigators indicated using witness descriptions as a basis for selecting fillers (Wogalter et al., 2004).

Simultaneous Versus Sequential Presentation

The manner in which a lineup is presented could moderate the effect of suspect-filler similarity on identification outcomes. Lineup members can be presented to eyewitnesses all at once (simultaneously) or one at a time (sequentially). Simultaneous lineups have been criticized for allowing witnesses to adopt a relative judgment strategy (Wells, 1984). That is, witnesses viewing simultaneous lineups might be tempted to choose the person who looks most similar to the perpetrator in comparison to the other lineup members. Although using relative judgments should tend to lead to correct identifications from culprit-present lineups, this strategy is clearly problematic when the culprit is absent. Lindsay and Wells (1985) consequently developed the sequential lineup procedure to encourage witnesses to compare each individual lineup member with their memory of the criminal (i.e., an absolute judgment) rather than with the other lineup members.

In the sequential lineup, each photo is shown individually and the witness is required to decide whether the photo is or is not the culprit before proceeding to the next one. Lindsay and Wells (1985) recommend showing each photo only once and not allowing witnesses to go back and look at previously viewed photos. In addition, to prevent the tendency to choose someone near the end of the array, they suggest withholding the number of photos that will be viewed from the witness (commonly referred to as "backloading"). When Lindsay and Wells directly compared the two lineup presentation formats, they observed a lower false identification rate on the sequential lineup (17%) than on the simultaneous lineup (43%). Recent meta-analyses (Stebay, Dysart, Fulero, & Lindsay, 2001; Stebay, Dysart, & Wells, 2011) have supported the view that sequential lineups offer an effective safeguard against false identification. However, correct identification rates also tend to be lower in sequential compared with simultaneous lineups, leading some researchers to suggest the sequential procedure encourages witness to adopt a more conservative decision criterion (Flowe & Bessemier, 2011; Flowe & Ebbesen, 2007; Meissner, Tredoux, Parker, & MacLin, 2005). In other words, witnesses might be less willing to choose from sequential lineups than from simultaneous lineups.

Carlson, Gronlund, and Clark (2008) hypothesized that suspect-filler similarity could moderate lineup presentation effects. Specifically, they predicted that a sequential advantage would only emerge when an innocent suspect resembles the culprit and stands out from other lineup members who do not (i.e., when the lineup is biased), arguing the innocent suspect is much less likely to stand out in a sequential lineup because comparisons among lineup members are more difficult. Carlson et al. conducted two experiments to test their hypothesis. In the first experiment, simultaneous and sequential lineups that only contained fillers highly similar to the innocent suspect were compared. In support of their hypothesis that the sequential advantage would only emerge when lineups were biased, the lineups with highly similar fillers led to equivalent rates of innocent suspect misidentifications between the simultaneous and sequential conditions. Furthermore, a simultaneous ad-

vantage was found for correct identifications from culprit-present lineups; however, Carlson et al. noted that this finding was likely a consequence of matching the fillers to the innocent suspect's appearance—even in culprit-present lineups—which would be expected to make the culprit stand out when the lineup members are presented simultaneously.

In their second experiment, Carlson et al. (2008) directly manipulated lineup fairness by constructing lineups containing fillers of low, moderate, and high similarity to the suspect. Again, compared with sequential lineups, simultaneous lineups produced a higher rate of correct identification from culprit-present lineups, albeit only for those containing low similarity fillers (i.e., biased lineups). In addition, in culprit-absent lineups the false identification rate was lower when presented sequentially than when presented simultaneously; however, similar to the simultaneous advantage for culprit-present lineups, the sequential advantage was only found in the case of biased lineups. These results indicate the degree of similarity between fillers and the suspect can influence the effects of lineup presentation manipulations. As a consequence, we included lineup presentation as a moderator variable in the present research.

Meta-Analytic Approach

When examining suspect-filler similarity effects, one could contrast the rate at which culprits and innocent suspects are chosen between lineups with fillers of high versus low resemblance to the suspect. Essentially, this was the approach used by Clark and Godfrey (2009) in their broad review of the eyewitness literature. Based on a summary of seven studies, Clark and Godfrey concluded that both culprit and innocent suspect choices were more prevalent when suspect-filler similarity was low than when it was high. The increase in innocent suspect misidentifications was greater than the increase in culprit identifications, suggesting that a low similarity lineup is more likely to lead to innocent suspect misidentifications than it is to facilitate culprit identifications. Clark and Godfrey noted, however, that three of the seven studies summarized contained a manipulation of clothing bias rather than a manipulation of facial appearance. Clark and Godfrey also did not comment on how suspect-filler similarity affected filler selections and lineup rejections, focusing instead on suspect identifications. Filler selections are known errors, so they are less concerning than innocent suspect misidentifications (Wells & Lindsay, 1980). However, witnesses may be required to attempt lineup identifications on multiple occasions (Behrman & Davey, 2001); if a filler had been misidentified on a previous occasion, the credibility of that witness could be jeopardized (Tunnicliff & Clark, 2000). Furthermore, filler identifications have been shown to have diagnostic value; in fact, when the *a priori* likelihood of the suspect's guilt is relatively high, filler identifications may be more informative of a suspect's innocence than suspect identifications are of a suspect's guilt (Wells & Olson, 2002).

In the present research, we used meta-analytic techniques to investigate the effect of suspect-filler similarity on all identification responses (suspect identifications, filler identifications, and lineup rejections). In addition, rather than strictly comparing high and low similarity lineups, both of which were recommended against by the Technical Working Group for Eyewitness Evidence (2003), we compared three levels of suspect-filler similarity: low,

moderate, and high. Note that these labels correspond to relative differences in similarity, rather than to objectively defined categories. Compared with moderate similarity lineups, low similarity lineups were expected to increase both correct identifications and false identifications. Conversely, high similarity lineups were expected to decrease correct identifications and false identifications.

Method

Procedure

Literature search. To begin, one of the authors searched the *PsychInfo* and *Web of Science* databases for articles containing various combinations of the following search terms: *eyewitness*, *identification*, *lineup*, *foil*, *filler*, *distractor*, *similarity*, *match*, *appearance*, *description*, *construction*, *fairness*, *composition*. When a relevant article was identified, its reference list, as well as the list of articles in which it had been cited, were examined. Finally, *Google* and *Google Scholar* were searched to account for any articles that were not in the aforementioned databases. The search ended in April 2012 with 17 independent studies that met the inclusion criteria, providing data from 6,650 participants. Publication dates for the articles ranged between 1980 and 2011.

Inclusion criteria. To be included in the meta-analysis, the study needed to be an investigation of event memory (live events or video events) that included a comparison between two or more lineups that differed in suspect-filler similarity. Several methods of checking similarity manipulations were present in the literature. One method is to obtain similarity ratings between the suspect and each of the fillers. That is, raters observed two faces (the suspect and a filler) and indicated their judgment of similarity using a Likert scale. The number of points on the scale varied widely from study to study, with some as low as 4 points and others as high as 1,001 points. Similarity judgments were typically, but not always (e.g., Juslin et al., 1996), conducted using participants who did not provide data for the study itself. Another method of checking similarity involves conducting mock witness tests in which a set of judges view a lineup and identify the person who best fits an eyewitness description of the suspect (Doob & Kirshenbaum, 1973). The data obtained from mock witness tests can then be used to calculate effective size scores (Malpass, 1981; Tredoux, 1998), which are estimates of the number of lineup members who fit the description sufficiently to draw choices away from the suspect. Lineups with high effective size scores are judged to have higher suspect-filler similarity than lineups with low effective size scores (Brigham & Brändt, 1992; Brigham, Ready, & Spier, 1990).

Exclusion criteria. Studies that manipulated lineup similarity within the context of face recognition paradigms (e.g., Flowe & Ebbesen, 2007) were excluded because they were not considered to adequately correspond with the experience of an eyewitness. Clothing bias manipulations were also excluded because they were considered fundamentally different from facial similarity manipulations. Furthermore, within-subject designs were excluded because we could not be certain that a repeated-measures design would be assessing the same effect as an independent-groups design (Morris & DeShon, 2002). In some studies, identifications were made from two lineups. For example, in one study a target-absent lineup was followed by a target-present lineup (Read, Tollestrup, Hammersley, McPadzen, & Christensen, 1990). These

studies were dealt with by only including data from the first lineup that was shown. Following the procedure employed by previous meta-analysts in the psychology and law domain (Deffenbacher, Bornstein, Penrod, & McGorty, 2004), unpublished studies were excluded to accommodate the legal system's preference for published research (e.g., *Daubert v. Merrell Dow Pharmaceuticals*, 1993).

Assignment of study weights. Because of the relative nature of similarity judgments, variability in true effect sizes was assumed and study weights were assigned using the random-effects model (Hedges, 1992). In contrast to the fixed-effect model, which only takes the within-study variance into account (i.e., sampling error) and assigns substantially greater weight to larger studies than to smaller studies, in the random-effects model the weights assigned to smaller and larger studies are more evenly distributed because both the within-study variance and the between-study variance are taken into account (Bornstein, Hedges, Higgins, & Rothstein, 2010). The weight (W) for a given study in the random-effects model is calculated as the inverse of the within-study variance (V) and the estimated between-study variance (T^2) combined:

$$W = \frac{1}{V + T^2}$$

Coding. To account for the varying degrees of suspect-filler similarity, lineups were categorized as having low, moderate, or high similarity. Three of the study authors were involved in the coding process. One author developed a coding guide that provided a general description of the fillers, a range of mean similarity ratings, and a range of effective size scores for each lineup similarity category (descriptions of the categories as well as details about the coding guide are provided in Appendix A; The individual studies within each category, as well as the proportions of each identification response, are provided in Appendices B–D). The other two authors independently coded the lineups using information provided in the Methods section of each article. Cohen's kappa indicated the initial level of interrater reliability was acceptable, $\kappa = .87$. All coding discrepancies were resolved to consensus through discussion between the two coders.

Effect size. Typically, one of three choices is possible in lineup identification tasks: suspect identifications, filler identifications, or lineup rejections.¹ For the purpose of the present research, the outcomes of each of these possibilities were treated as binary (e.g., the suspect was identified or the suspect was not identified) and analyzed in separate meta-analyses. This approach involved a relatively high number of tests, and the increased likelihood of Type I errors should be noted. However, by analyzing each outcome, we were able to determine whether changes in the rates of suspect identifications corresponded with changes in filler identifications or changes in lineup rejections.

When dealing with binary data, meta-analysts have the option of computing an odds ratio, a risk ratio, or a risk difference. Of the three measures, odds ratio has the best mathematical properties. For example, risk ratio and risk difference are not typically able to

¹ Researchers occasionally provided a "not sure" option. For ease of comparison among studies that did or did not provide this option, all "not sure" outcomes were treated as lineup rejections.

assume their full range of values, but odds ratio is capable of assuming its full range of values (Fleiss & Berlin, 2009). However, odds ratio is also the least intuitive of the three measures (Deeks, 2002). Risk difference is based on raw units and can be easily interpreted by both researchers and professionals who are unfamiliar with statistical techniques. For example, if rates of false identification were 25% for low similarity lineups and 35% for moderate similarity lineups, then the risk difference would be 10%. A meta-analysis of previous meta-analyses indicated similar conclusions were reached regardless of whether odds ratio or risk difference was calculated (Engels, Schmid, Terrin, Olkin, & Lau, 2000). Nevertheless, we calculated both measures to ensure our results would be both accurate and accessible. Z tests were computed to test each effect size measure for statistical significance.

Diagnosticity. Diagnosticity ratios provide a measure of the probative value of a lineup procedure by indicating how much more likely a suspect identification is to correspond to the perpetrator, as opposed to an innocent person. Diagnosticity is calculated as the ratio of culprit identifications from culprit-present lineups to innocent suspect identifications from culprit-absent lineups (Wells & Lindsay, 1980). For example, if a guilty suspect (culprit) is chosen by 60% of witnesses from a culprit-present lineup and an innocent suspect is chosen by 20% of witnesses from a culprit-absent lineup, the diagnosticity ratio would be 3.0 ($60 \div 20$), indicating that a guilty suspect is 3 times more likely to be chosen than an innocent suspect. We compared these ratios among lineups that differed in suspect-filler similarity to evaluate the extent to which lineup fillers affected diagnosticity. For diagnosticity to be compared, both similarity and culprit presence needed to be manipulated within the study. Because not all studies that met the inclusion criteria had both culprit-present and culprit-absent conditions, the diagnosticity statistics were based on a subset of the studies included in the meta-analysis. Furthermore, not all studies included low, moderate, and high similarity lineups. As a consequence, if a study included only a comparison between low and moderate similarity lineups, data from the moderate similarity lineup from that study would not affect the diagnosticity ratios that were calculated for the comparison between moderate and high similarity lineups. This approach was important because it allowed for causal conclusions regarding any differences in diagnosticity between two lineup types; however, the overall diagnosticity values for all the low, moderate, and high similarity lineups are provided in Appendix E.

Moderator Variables

Presentation. Given the different strategies that are hypothesized to play a role in evaluating simultaneous (relative judgment) and sequential (absolute judgment) lineups, lineup presentation could have an influence on suspect-filler similarity effects. Carlson et al. (2008) showed that suspect-filler similarity can moderate the effect of simultaneous versus sequential lineup presentation. In the present research, we took a different approach and tested whether lineup presentation moderates the effect of manipulating suspect-filler similarity by including lineup presentation as a categorical moderator variable.

Culprit presence. Suspect-filler similarity has been manipulated in both culprit-present and culprit-absent lineups. In the case of culprit-present lineups, suspect-filler similarity always refers to

the same thing: the degree to which the fillers resemble the culprit. For culprit-absent lineups, suspect-filler similarity could again refer to the degree of similarity between the culprit and the fillers or it could refer to the degree of similarity between the innocent suspect and the fillers. This discrepancy is a consequence of some researchers striving for experimental control by using the same fillers in culprit-present and culprit-absent lineups and other researchers striving for ecological validity by following the procedures that would be used when lineups are constructed by law enforcement personnel (Clark & Tunnicliffe, 2001). For the present purposes, we made no distinction between culprit-absent lineups with fillers who were matched to the perpetrator and culprit-absent lineups with fillers who were matched to the innocent suspect, instead focusing on the similarity between lineups irrespective of the method used to manipulate it. Although it would be ideal to analyze the two variations of suspect-filler similarity on culprit-absent lineups separately, the limited number of studies examining suspect-filler similarity made this approach undesirable.

Whether the culprit is present or absent in a lineup necessarily determines the outcome that is considered accurate. For culprit-present lineups, the correct decision is to identify the suspect. For culprit-absent lineups, the correct decision is to reject the lineup. Given the fundamental difference between a lineup that contains a culprit and one that does not (Wells & Penrod, 2011), separate meta-analyses were conducted for culprit-present and culprit-absent lineups instead of including culprit-presence as a moderator within a larger meta-analysis.

Results

Two effect size measures were calculated for all analyses: odds ratio and risk difference. Consistent with previous research (Engels et al., 2000), none of the main effects differed in statistical significance as a function of the outcome measure. The only moderator analysis that differed by outcome measure was for filler identifications in the comparison between high and moderate similarity lineups when the culprit was absent. Specifically, a risk difference that was marginal ($p = .056$) corresponded with an odds ratio that was significant ($p = .035$). For the sake of avoiding redundancy, only risk difference (the more intuitive measure) is reported. The odds ratio analyses can be obtained by contacting the first author.

Risk Differences (Effect Size) and Diagnosticity

Table 1 presents descriptive and inferential statistics for the main effects of similarity. All analyses have been divided by whether the culprit was present or absent from the lineup. For each of the three comparisons (high vs. low similarity lineups, moderate vs. low similarity lineups, and moderate vs. high similarity lineups), the proportions of suspect identifications, filler identifications, and lineup rejections are provided, as well as the difference between those proportions (risk difference). The risk difference was computed such that a positive value would indicate that as similarity increased, so did the likelihood of a given outcome. Conversely, a negative risk difference would indicate that as similarity increased, the likelihood of a given outcome decreased. Table 1 also includes 95% confidence intervals, null hypothesis significance tests, and heterogeneity tests associated with the risk differences. Finally, Table 1 also includes the number of studies

Table 1
Main Effects of Suspect-Filler Similarity on Identification Choices

Culprit	Lineup choice	K	N	Similarity		Effect size and 95% confidence interval			Test of null		Heterogeneity indices		
				High	Low	Risk difference	Lower limit	Upper limit	z	p	Q (df)	p	F ²
Present	Suspect	5	1338	.44	.65	-.21	-.34	.08	-3.16	.002	17.8 (4)	.001	77.5
	Filler	3	1138	.27	.06	.21	.14	.28	6.00	.001	3.7 (2)	.158	45.8
	Rejection	3	1138	.37	.34	.03	-.03	.08	1.02	.307	1.8 (2)	.411	.00.0
Absent	Suspect	7	1775	.19	.37	-.18	-.27	-.10	-4.15	.001	23.2 (6)	.001	74.2
	Filler	9	1965	.36	.18	.18	.11	.25	5.05	.001	26.1 (8)	.001	69.4
	Rejection	9	1965	.47	.49	-.02	-.09	.05	-0.67	.505	15.7 (8)	.046	49.2
				Moderate	Low								
Present	Suspect	6	1449	.47	.63	-.16	-.26	-.05	-2.96	.003	15.0 (5)	.011	66.6
	Filler	5	1389	.24	.08	.16	.03	.29	2.42	.016	34.8 (4)	.001	88.5
	Rejection	5	1389	.32	.34	-.02	-.07	.03	-0.68	.499	1.8 (4)	.770	.00.0
Absent	Suspect	7	1551	.24	.40	-.16	-.23	-.09	-4.40	.001	11.6 (6)	.072	48.3
	Filler	8	1583	.22	.10	.12	.06	.18	4.08	.001	13.9 (7)	.053	49.6
	Rejection	8	1583	.50	.48	.02	-.03	.07	0.81	.417	3.8 (7)	.804	.00.0
				High	Moderate								
Present	Suspect	8	1996	.45	.47	-.02	-.12	.08	-0.43	.661	29.2 (7)	.001	76.1
	Filler	7	1938	.19	.17	.02	-.06	.10	0.47	.638	29.7 (6)	.001	79.8
	Rejection	7	1938	.37	.38	-.01	-.06	.04	-0.30	.762	7.1 (6)	.314	15.1
Absent	Suspect	9	1798	.12	.20	-.08	-.14	-.03	-2.82	.005	19.7 (8)	.012	59.4
	Filler	11	2425	.29	.22	.07	.01	.13	2.24	.025	25.9 (10)	.004	61.4
	Rejection	11	2425	.57	.58	-.01	-.06	.05	-0.27	.788	15.7 (10)	.110	36.1

(K) and the number of participants (N) associated with each of the three comparisons.

High versus low similarity (Table 1). For culprit-present lineups, the correct identification rate was significantly lower for high similarity lineups compared with low similarity lineups. Correspondingly, the filler identification rate was significantly higher for high similarity lineups compared with low similarity lineups. The difference in incorrect rejections between high and low similarity lineups was not reliable. Thus, it appears that including fillers who are highly similar to the suspect has the effect of drawing choices away from that suspect and toward the highly similar fillers, rather than toward rejection of the lineup.

When the culprit was absent, the rate of innocent suspect misidentifications was significantly lower for high similarity lineups compared with low similarity lineups. The rate of filler identifications was significantly higher for high similarity lineups compared with low similarity lineups. There was no reliable difference in correct rejections between high and low similarity lineups. This pattern of results closely mirrors that found when the culprit was present. Thus, regardless of whether the culprit was present or absent, replacing low similarity fillers with high similarity fillers resulted in a decrease in suspect identifications and an increase in filler identifications.

The ratio of culprit identifications from culprit-present lineups to innocent suspect misidentifications from culprit-absent lineups was calculated for both high and low similarity lineups to assess their diagnosticity. This analysis showed that the diagnostic value of suspect choices from high similarity lineups (5.07) was 3.11 times greater than the diagnostic value of suspect choices from low similarity lineups (1.64). Thus, compared with low similarity lineups, suspect identifications from high similarity lineups were more likely to be accurate choices.

Moderate versus low similarity (Table 1). Comparisons between moderate and low similarity lineups produced results similar to those found when high and low similarity lineups were compared. Specifically, compared with low similarity lineups, moderate similarity lineups produced a lower rate of suspect identifications, a higher rate of filler identifications, and had no reliable effect on lineup rejections. Again, this pattern was obtained both when the culprit was present and when the culprit was absent. The ratio of culprit identifications to innocent suspect misidentifications between the two lineup types revealed a diagnostic value of moderate similarity lineups (3.27) that was 1.47 times greater than the diagnostic value of low similarity lineups (2.22).

High versus moderate similarity (Table 1). In contrast to the previous two comparisons, the effect of manipulating whether fillers were highly similar or moderately similar to the suspect was dependent upon whether the culprit was present or absent. For culprit-present lineups, there were no significant differences between high and moderate similarity lineups (for culprit identifications, filler identifications, and lineup rejections). In contrast, for culprit-absent lineups, the innocent suspect misidentification rate was significantly lower when fillers were highly similar compared with when they were moderately similar. A concomitant increase in the filler identification rate on high similarity lineups compared with moderate similarity lineups was also observed. Consistent with the high-low and the moderate-low comparisons, the difference in correct rejections between high and moderate similarity lineups was not reliable. The ratio of culprit identifications to innocent suspect misidentifications indicated that as similarity increased, so did diagnosticity. Specifically, the diagnostic value of high similarity lineups (10.67) was 2.50 times greater than the diagnostic value of moderate similarity lineups (4.28).

Heterogeneity

The heterogeneity of effect sizes among studies was assessed by two metrics: Cochran's Q and I^2 . Cochran's Q tests the null hypothesis that the true effect size does not vary from study to study (Cochran, 1954). A significant Q value that is greater than expected by chance (that is, greater than the degrees of freedom) indicates the absence of a common effect size. Although the Q statistic provides an indication of whether or not there is greater heterogeneity than expected by chance, it does not indicate the amount of heterogeneity that is present. In contrast, I^2 gives an indication of the extent of heterogeneity. Specifically, I^2 provides an estimate of the proportion of the observed differences in effect size that were because of variations in true effects, as opposed to sampling error (Higgins, Thompson, Deeks, & Altman, 2003).

Table 1 provides ample evidence of heterogeneity in effect sizes, indicating the assignment of weights using the random-effects model was appropriate. Many of the Q tests were significant, indicating the obtained summary effects were often based on

individual effect sizes that were subject to dispersion. This was particularly true for suspect and filler identifications, which were almost always significant. In contrast, only one Q test for lineup rejections reached significance. The mean of all I^2 values that were computed was 49.8. Using the benchmarks proposed by Higgins et al. (2003), a mean near 50 would suggest a moderate amount of the dispersion in effect sizes was due to real differences in true effects; however, a few I^2 values of zero were observed in the lineup rejection analyses, suggesting any dispersion observed in these effects was likely a consequence of sampling error.

Moderator Analysis: Lineup Presentation

Table 2 presents descriptive and inferential statistics for the moderator effect of lineup presentation, including the rate of each lineup outcome as a function of whether the lineup was presented simultaneously or sequentially, their associated risk differences, and a significance test (Q) of the moderating effect.

Table 2
Moderating Effects of Lineup Presentation on Suspect-Filler Similarity Manipulations

Culprit	Lineup choice	Presentation	K	Similarity		Risk difference	Moderator test		
				High	Low		Q	df	p
Present	Suspect	Simultaneous	5	.45	.69	-.24	0.5	1	.495
		Sequential	2	.35	.51	-.16			
	Filler	Simultaneous	3	.31	.07	.24	1.4	1	.237
		Sequential	2	.24	.06	.18			
Absent	Rejection	Simultaneous	3	.36	.26	.10	0.8	1	.369
		Sequential	2	.42	.44	-.02			
	Suspect	Simultaneous	7	.21	.44	-.23	2.6	1	.104
		Sequential	5	.16	.27	-.11			
	Filler	Simultaneous	9	.43	.20	.23	2.1	1	.149
		Sequential	5	.20	.07	.13			
	Rejection	Simultaneous	9	.38	.42	-.04	0.1	1	.759
		Sequential	5	.64	.66	-.02			
Present	Suspect	Simultaneous	6	.51	.66	-.15	5.8	1	.016
		Sequential	2	.22	.52	-.30			
	Filler	Simultaneous	5	.34	.08	.16	2.2	1	.137
		Sequential	2	.34	.06	.28			
	Rejection	Simultaneous	5	.26	.29	-.03	0.6	1	.427
		Sequential	2	.42	.41	.01			
	Suspect	Simultaneous	7	.26	.45	-.19	0.7	1	.393
		Sequential	4	.21	.33	-.12			
Absent	Filler	Simultaneous	8	.24	.11	.13	0.5	1	.477
		Sequential	4	.17	.07	.10			
	Rejection	Simultaneous	8	.47	.43	.04	0.1	1	.748
		Sequential	4	.61	.59	.02			
Present	Suspect	Simultaneous	7	.42	.49	-.07	5.0	1	.022
		Sequential	2	.33	.23	.10			
	Filler	Simultaneous	6	.23	.20	.03	5.1	1	.024
		Sequential	2	.24	.35	-.11			
	Rejection	Simultaneous	6	.36	.35	.01	0.1	1	.743
		Sequential	2	.42	.45	-.03			
	Suspect	Simultaneous	8	.13	.21	-.08	1.3	1	.258
		Sequential	4	.16	.19	-.03			
Absent	Filler	Simultaneous	10	.37	.25	.12	3.7	1	.056
		Sequential	4	.21	.19	.02			
	Rejection	Simultaneous	10	.52	.55	-.03	0.6	1	.454
		Sequential	4	.62	.61	.01			

For culprit-present lineups, three significant moderator effects of lineup presentation were observed. First, in the comparison between moderate and low similarity lineups, culprit identifications were moderated by whether the lineup was presented simultaneously or sequentially. For both simultaneous and sequential lineups, the culprit was more likely to be identified from a low similarity lineup than from a moderate similarity lineup; however, the increase in culprit identifications was larger for sequential lineups than for simultaneous lineups. Second, when presented simultaneously the culprit identification rate was higher in moderate similarity lineups than in high similarity lineups. In contrast, when presented sequentially culprit identifications were less likely to occur in moderate similarity lineups than in high similarity lineups. Third, for simultaneous lineups the filler identification rate for moderate similarity lineups was slightly lower than the filler identification rate for high similarity lineups. Conversely, for sequential lineups the filler identification rate for moderate similarity lineups was higher than the filler identification rate for high similarity lineups.

For culprit-absent lineups, none of the moderating effects of lineup presentation reached significance. However, given the limited data available, it is worth considering some notable trends. Table 2 shows that decreases in suspect-filler similarity were associated with greater increases in innocent suspect misidentifications from simultaneous lineups than from sequential lineups. For example, compared with moderate similarity lineups, low similarity lineups increased innocent suspect misidentifications by 19% when presented simultaneously compared with 12% when presented sequentially. Similarly, in the comparison with high similarity lineups, low similarity lineups increased innocent suspect misidentifications by 23% when presented simultaneously compared with 11% when presented sequentially. Regardless of how the lineup was presented, innocent suspect misidentifications were consistently more likely with low similarity lineups than with moderate or high similarity lineups; however, it appears this effect may be partly mitigated by the use of sequential lineups.

Discussion

The meta-analysis revealed several key findings:

(a) Suspect identifications were more common from low similarity lineups than from moderate or high similarity lineups. This was true both for culprit identifications and for innocent suspect misidentifications.

(b) Filler identifications were more common from moderate and high similarity lineups than from low similarity lineups. This finding was unaffected by whether the culprit was present or absent.

(c) Suspect-filler similarity had no reliable effects on lineup rejections, regardless of whether the culprit was present or absent.

(d) Whether the lineup contained moderate or high similarity fillers had no reliable effect on culprit identifications; however, innocent suspects were significantly more likely to be misidentified from moderate similarity lineups than from high similarity lineups.

(e) Increases in suspect-filler similarity corresponded with increases in the degree to which suspect identifications were diagnostic of the suspect's guilt.

As expected, the presence of low similarity fillers was associated with an increased likelihood of suspect identifications. This pattern was essentially uninfluenced by whether or not the culprit was present. Moreover, whether low similarity lineups were compared with moderate or with high similarity lineups also had little consequence. Such a robust finding emphasizes the value of ensuring the suspect does not stand out in a lineup. When filler similarity increased, there was a shift from suspect identifications to filler identifications rather than to lineup rejections. In other words, similarity manipulations had no reliable effect on whether a lineup member was chosen or not. Rather, the similarity of fillers only seemed to influence *which* lineup member was chosen. If fillers were dissimilar, the suspect was more likely to be chosen. If fillers were similar, a filler was more likely to be chosen.

Given that increasing similarity resulted in a shift from suspect to filler identifications regardless of whether the culprit was present or absent, the meta-analytic findings are consistent with Clark's (2012) assertion that policies designed to prevent innocent suspect misidentifications come at the cost of reducing correct identifications of the culprit. Clearly, culprits are more easily identified when fillers are dissimilar-looking than when they are similar-looking. However, the diagnosticity ratios indicated that any reduction in culprit identifications associated with increased filler similarity was outweighed by a more pronounced reduction in innocent suspect misidentifications. As similarity between the suspect and fillers increased, the diagnosticity of suspect identifications also consistently increased. Thus, although it would be misleading to suggest increasing suspect-filler similarity had no cost, the reduction in culprit identifications was lower in magnitude than the reduction in innocent suspect misidentifications.

Suspect and Filler Identifications

Wells (1984) theorized that simultaneous lineups encourage witnesses to adopt a relative judgment strategy in which lineup members are compared with one another and the person who best resembles the culprit is chosen. Wells (1993) provided compelling evidence in support of this claim by comparing identification responses on a culprit-present lineup to a lineup that was identical except the culprit had been removed without replacement. From the culprit-present lineup, the culprit was chosen by approximately half of the witnesses and fillers were chosen by one quarter of the witnesses. If witnesses were using an absolute judgment strategy, removing the culprit would be expected to facilitate a shift from culprit identifications to lineup rejections and the filler identification rate should have been unchanged; however, that was not the case. On the contrary, removing the culprit resulted in a shift from culprit identifications to filler identifications, which more than doubled. More recently, using the removal-without-replacement procedure, Clark and Davey (2005) replicated the shift from culprit to filler identifications in simultaneous lineups. Interestingly, a similar shift was present when lineup members were presented sequentially, leading Clark and Davey to suggest relative decisions might also occur with sequential lineups.

The meta-analytic results provide further support for the notion that witnesses engage in a relative judgment strategy when making lineup decisions. In culprit-absent lineups, the innocent suspects who were chosen by researchers typically either fit the culprit's description (Clark & Tunnicliffe, 2001;

Juslin et al., 1996; Lindsay & Wells, 1980; Tredoux, Parker, & Nunez, 2007; Wells et al., 1993) or were highly similar to the culprit's appearance (Carlson et al., 2008; Darling et al., 2008; Gronlund, Carlson, Dailey, & Goodsell, 2009; Lindsay et al., 1991). Thus, when lineups were composed of fillers who did not resemble the culprit, the innocent suspect would have been the lineup member who best matched the culprit's appearance. If participants were using relative judgments, this strategy should have increased the number of innocent suspect choices from low similarity lineups. Conversely, increasing the similarity of the fillers to the suspect should have increased the number of filler identifications, as it would have increased the likelihood that one of the fillers would have best resembled the culprit. This is precisely the pattern of results that was revealed in the meta-analysis.

Lineup Rejections

In previous studies, manipulations of suspect-filler similarity have produced conflicting effects on lineup rejections. Increasing similarity between the suspect and fillers has been associated with increases in lineup rejections (e.g., Carlson et al., 2008; culprit-present, simultaneous lineups), decreases in lineup rejections (e.g., Lindsay et al., 1991, Experiment 3; culprit-present, simultaneous lineups), as well as having no effect on lineup rejections (Brewer & Wells, 2006; Charman, Wells, & Joy, 2011; Clark & Tunnicliff, 2001; Darling et al., 2008; Juslin et al., 1996; Lindsay et al., 1994; Lindsay & Wells, 1980; Tredoux et al., 2007; Wells et al., 1993). Tunnicliff and Clark (2000) explored one situation in which similarity seems likely to affect lineup rejections: when the lineup has been matched to the appearance of an innocent suspect who does not resemble the culprit. In two experiments, they found that lineup rejections were commonplace when none of the lineup members resembled the culprit. Tunnicliff and Clark further discussed what might happen when the innocent suspect and the culprit are similar in appearance. If a similar-looking innocent suspect were placed into a lineup with dissimilar fillers, the lineup would be biased because the innocent suspect would stand out. In this scenario, a false identification seems more likely than a lineup rejection. Nevertheless, that has not always been the case. For example, when Lindsay et al. (1991, Experiment 3) biased a culprit-absent lineup toward an innocent suspect, identification responses were split almost evenly between false identifications of the innocent suspect and correct rejections of the lineup (fillers were never chosen). Moreover, the correct rejection rate for the biased lineup (46%) was twice the correct rejection rate for another lineup containing fillers who did resemble the culprit (23%). These data, combined with those reported by Tunnicliff and Clark, indicate that lineups low in suspect-filler similarity are more likely to be rejected than lineups of moderate or high suspect-filler similarity.

It seems reasonable to hypothesize that lineup rejections would be inversely related to suspect-filler similarity. A lineup composed of fillers who are highly similar to the culprit should draw more choices than a lineup composed of fillers who bear little resemblance to the culprit. As intuitive as this idea may be, data suggesting the opposite have been reported. For example, Carlson et al. (2008) found a higher correct rejection rate for

moderate similarity lineups (47%) than for low similarity lineups (24%), although this pattern was only found for simultaneous lineups. For sequential lineups, a nonsignificant trend in the opposite direction was observed. Although the effect observed by Lindsay et al. (1991) was consistent for simultaneous and sequential lineups, the results reported by Carlson et al. suggest lineup presentation might influence whether suspect-filler similarity influences lineup rejections.

Our evaluation of the literature on the whole showed that similarity rarely had an effect on whether or not a lineup was rejected. The absence of an effect of similarity on rejections was perhaps the most consistent finding in the meta-analysis. Regardless of whether low and high, moderate and high, or low and moderate lineups were compared, similarity effects on rejection were both small in magnitude and nonsignificant. Why was the rate of lineup rejections unchanged by manipulations of suspect-filler similarity? One possibility is that increasing the similarity of fillers produces contradictory effects. In his WITNESS model, Clark (2003) hypothesized that two factors contribute to suspect and filler identifications: (a) the extent to which a given lineup member matches the witness's memory of the culprit (i.e., an absolute judgment) and (b) the difference in strength of the recognition experience between the lineup member who best matches the witness's memory of the culprit and the next-best alternative. Therefore, increasing suspect-filler similarity could increase the likelihood that a lineup member will match the witness's memory of the culprit and thus exceed the criterion for a choice to be made while simultaneously decreasing the difference between the best match and the next-best match, in turn decreasing the witness's confidence that the best match is in fact the culprit. Were this to be the case, these competing effects could, as observed in the present research, result in no net change in rejection rates. Of course, the effects would only negate each other if they are similar in strength. An effect of similarity on rejections could be expected if one of these competing effects was stronger than the other, which would explain why similarity has sometimes been observed to influence rejections.

Limitations of the Meta-Analysis

There are, of course, limitations of the meta-analysis that should be noted. First, suspect-filler similarity was operationalized as the average similarity of the fillers to the suspect. Thus, a moderate similarity lineup could consist entirely of fillers who moderately resemble the suspect or it could consist of some combination of fillers of low, moderate, and high resemblance. Furthermore, similarity relations are not limited to the resemblance between the suspect and the fillers. Other similarity relations that could affect eyewitness accuracy include the similarity between the culprit's photo and the culprit's physical appearance, the similarity among the fillers, and the similarity between the culprit and the innocent suspect. For instance, the extent to which the innocent suspect resembles the culprit would almost certainly influence suspect-filler similarity effects and ideally would have been included as a moderator variable. Unfortunately, this was not an option because ratings of the similarity between the culprit and the innocent suspect were rarely reported (but see Clark & Tunnicliff, 2001).

Second, we excluded unpublished studies from the analysis to accommodate the preference for published research in the legal system. Significant effects are generally more likely to be published than nonsignificant effects, so including unpublished studies into the meta-analysis might have resulted in smaller effects.

Third, despite more than 30 years having passed since the first exploration of suspect-filler similarity effects, the literature in this domain is relatively small. As a consequence, the number of studies comprising appropriate tests of similarity limited the scope of the meta-analysis. For example, researchers varied in how they manipulated similarity and a larger database would have been needed to effectively examine whether the type of manipulation influenced similarity effects. On a related note, because not all studies included a manipulation of lineup presentation, our conclusions about the moderating effect of this variable are tentative. In future studies of suspect-filler similarity, we encourage researchers to include the full design (similarity \times culprit-presence \times lineup presentation) to increase our understanding of the relation between these three variables.

Lineup Construction Recommendations

In the report developed by the Technical Working Group for Eyewitness Evidence (2003), police investigators are advised that the suspected culprit should not stand out from the lineup members who are known to be innocent. The meta-analysis results provide support for this recommendation. Compared with lineups that had fillers of moderate or high suspect-filler similarity, the rate of innocent suspect misidentifications nearly doubled when lineups contained fillers of low suspect-filler similarity. The group's report further advises police investigators to ensure that fillers and the suspect are not too similar. The concern is that using extremely similar fillers will essentially result in a lineup of "clones" that would greatly diminish the likelihood that a culprit will be correctly identified. However, our synthesis of the existing literature did not support this assertion. Although the not-too-similar rule has a solid theoretical foundation (Lüüs & Wells, 1991) that was soon after supported by empirical research (Wells et al., 1993), we found no reliable difference in correct identifications between lineups within the categories of high and moderate suspect-filler similarity.

Wells (1993) reported concern among some eyewitness researchers that choosing fillers with features that vary from those of the suspect could result in lineups with an unintended bias toward innocent suspects. The present research suggests their concern may have been justified. Innocent suspects were significantly more likely to be misidentified from lineups of moderate suspect-filler similarity compared with lineups of high suspect-filler similarity. This increase in innocent suspect misidentifications, taken together with the null effect in culprit identifications, suggests that either (a) the rule of ensuring lineup members are not too similar to the suspect does not improve performance on culprit-present lineups and may actually contribute to wrongful convictions or (b) the inability to obtain fillers who are truly of high resemblance to the suspect has led to an incongruity between theory and practice. In other

words, although the rule to avoid highly similar fillers may be theoretically sound, finding such fillers in practice may be more difficult than had been anticipated.

Let it appear that we are advocating the dismissal of a rule that has been deemed best practice in lineup identification procedures (Turtle, Lindsay, & Wells, 2003), it is critical to emphasize that the similarity categories were developed in relation to one another and that the "high" similarity lineups might not have had the degree of similarity that has been cautioned against. Inspection of the similarity ratings provided by the researchers suggests this might very well have been the case. Although the lineups we categorized as "high" had ratings higher than those categorized as "moderate," and researchers sought to create very high similarity lineups in many cases, the high similarity lineups rarely had mean similarity ratings that were above the midpoint of the scales that were used. The lineups were certainly not comprised of clones, but the relatively modest similarity ratings may also indicate a reluctance of those judging similarity to use the upper end of the scale (see Flowe & Ebbeson, 2007).

In any event, we recommend additional research to further refine our understanding of what constitutes a lineup of fillers who are "too similar." If our findings are replicated in future studies with lineups in which suspect-filler similarity is unquestionably high, then it might be best to advise using the most similar fillers available. Such a recommendation would provide less ambiguity than the current recommendation of using fillers who are similar, but not too similar.

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Appendix A

Coding Guide

Before the lineups were coded, guidelines were developed to facilitate a reliable method of categorizing lineups as having low, moderate, or high suspect-filler similarity. One of the authors developed the guidelines by reading the Methods sections of relevant articles and taking note of how labels researchers assigned to lineups (e.g., low similarity, high similarity) corresponded with similarity ratings and effective size values. However, coders were instructed to pay attention to more than just the similarity ratings and the effective size scores because these values could be influenced by the scale that was used (e.g., 7-point scale vs. 100-point scale), as well as the instructions that the researchers provided. Moreover, quantitative measures of similarity were not reported in some articles, further necessitating a more comprehensive approach to categorizing the lineups. To encourage the coders to consider more than the quantitative ratings and adopt a more holistic evaluation of the lineups, the guidelines included a range of mean similarity ratings for each of the categories that overlapped with one another. This provided coders with the flexibility to use information in addition to the similarity ratings and effective size scores when assigning a code to a lineup.

The range of similarity ratings and effective size scores for each category is provided below. All similarity ratings were converted to a 101-point scale for ease of comparison between studies. The lower end of the range of similarity ratings for the high similarity lineups may seem low on an absolute scale; however, there is good reason to suspect judges tend to be conservative when assessing the similarity between two faces. For instance, when Flowe and Ebbeson (2007) collected judgments of similarity between two

computer-generated faces that apart from one feature were identical, those faces were assigned a similarity rating of 70 (on a 101-point scale). Furthermore, of all the lineups included in the meta-analysis, not a single one exceeded a similarity rating of 60 (on a 101-point scale). Thus, in relative terms, a lineup with similarity ratings near the midpoint of a scale can be considered quite high. With regard to the effective size scores, our guidelines correspond well with Brigham et al. (1990), who suggested a lineup with an effective size of 3 (for a 6-member lineup) should be considered “fair.”

Low Similarity

Fillers bear little resemblance to the suspect. Similarity ratings range between 0 and 35 (on a 101-point scale). Effective size scores around 1–2 (for a 6-member lineup).

Moderate Similarity

Fillers resemble the suspect to some degree, but not as much as other potential fillers. Similarity ratings range between 25 and 50 (on a 101-point scale). Effective size scores around 2–3 (for a 6-member lineup).

High Similarity

Fillers closely resemble the suspect. Similarity ratings range between 40 and 100 (on a 101-point scale). Effective size scores around 4–5 (for a 6-member lineup).

(Appendices continue)

Appendix B

Proportions of Identification Choices in High and Low Similarity Lineups

Study	Lineup	Culprit-present						Culprit-absent					
		Suspect		Filler		Rejection		Suspect		Filler		Rejection	
		High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
Cutler et al. (1987)	Sim	.65	.63	NR	NR	NR	NR	—	—	.73	.70	.27	.30
Read et al. (1990)	Sim	—	—	—	—	—	—	.14	.18	.27	.27	.59	.55
Lindsay et al. (1991) Exp. 3	Sim	—	—	—	—	—	—	.40	.53	.37	.00	.23	.47
Lindsay et al. (1991) Exp. 3	Seq	—	—	—	—	—	—	.07	.07	.26	.00	.67	.93
Wells et al. (1993)	Sim	.21	.71	.43	.07	.36	.21	.12	.43	.48	.12	.41	.45
Lindsay et al. (1994) Exp. 2	Sim	.66	.81	NR	NR	NR	NR	—	—	—	—	—	—
Lindsay et al. (1994) Exp. 3	Sim	—	—	—	—	—	—	.08	.50	.39	.00	.53	.50
Lindsay et al. (1994) Exp. 3	Seq	—	—	—	—	—	—	.00	.16	.11	.00	.88	.84
Tredoux et al. (2007)	Sim	—	—	—	—	—	—	.25	.42	.34	.10	.41	.49
Tredoux et al. (2007)	Seq	—	—	—	—	—	—	.21	.41	.14	.15	.65	.44
Carlson et al. (2008)	Sim	.31	.71	.22	.06	.47	.24	.16	.64	.51	.12	.33	.24
Carlson et al. (2008)	Seq	.41	.46	.20	.02	.39	.52	.20	.33	.16	.09	.64	.59
Gronlund et al. (2009)	Sim	.42	.62	.31	.07	.27	.31	.36	.47	.32	.14	.32	.39
Gronlund et al. (2009)	Seq	.31	.54	.25	.07	.44	.39	.28	.40	.28	.08	.44	.52
Charman et al. (2011)	Sim	—	—	—	—	—	—	—	—	.50	.38	.50	.63

Note. Exp = experiment; NR = not reported; sim = simultaneous presentation; seq = sequential presentation.

Appendix C

Proportions of Identification Choices in Moderate and Low Similarity Lineups

Study	Lineup	Culprit-present						Culprit-absent					
		Suspect		Filler		Rejection		Suspect		Filler		Rejection	
		Moderate	Low	Moderate	Low	Moderate	Low	Moderate	Low	Moderate	Low	Moderate	Low
Lindsay & Wells (1980)	Sim	.58	.71	.29	.12	.13	.18	.31	.70	.41	.04	.28	.26
Wells et al. (1993)	Sim	.67	.71	.07	.07	.26	.21	.12	.43	.31	.12	.57	.45
Lindsay et al. (1994) Exp. 2	Sim	.79	.81	NR	NR	NR	NR	—	—	—	—	—	—
Lindsay et al. (1994) Exp. 3	Sim	—	—	—	—	—	—	.25	.50	.19	.00	.56	.50
Lindsay et al. (1994) Exp. 3	Seq	—	—	—	—	—	—	.03	.16	.10	.00	.87	.84
Justin et al. (1996)	Sim	.44	.52	.20	.11	.35	.38	.09	.09	.17	.12	.73	.78
Tredoux et al. (2007)	Sim	—	—	—	—	—	—	.42	.42	.12	.10	.46	.49
Tredoux et al. (2007)	Seq	—	—	—	—	—	—	.24	.41	.13	.15	.62	.44
Carlson et al. (2008)	Sim	.43	.71	.26	.06	.32	.24	.30	.64	.23	.12	.47	.24
Carlson et al. (2008)	Seq	.24	.46	.24	.02	.53	.52	.38	.33	.17	.09	.46	.59
Gronlund et al. (2009)	Sim	.37	.62	.40	.07	.23	.31	.37	.47	.27	.14	.36	.39
Gronlund et al. (2009)	Seq	.22	.54	.39	.07	.39	.39	.23	.40	.25	.08	.52	.52
Charman et al. (2011)	Sim	—	—	—	—	—	—	—	—	.40	.36	.60	.64

Note. Exp = experiment; NR = not reported; sim = simultaneous presentation; seq = sequential presentation.

(Appendices continue)

Appendix D

Proportions of Identification Choices in High and Moderate Similarity Lineups

Study	Lineup	Culprit-present						Culprit-absent					
		Suspect		Filler		Rejection		Suspect		Filler		Rejection	
		High	Moderate	High	Moderate	High	Moderate	High	Moderate	High	Moderate	High	Moderate
Lindsay et al. (1991) Exp. 1	Sim	.77	.67	.03	.03	.20	.30	.03	.20	.03	.10	.93	.70
Wells et al. (1993)	Sim	.21	.67	.43	.07	.36	.26	.12	.12	.48	.31	.41	.57
Lindsay et al. (1994) Exp. 2	Sim	.66	.79	NR	NR	NR	NR	—	—	—	—	—	—
Lindsay et al. (1994) Exp. 3	Sim	—	—	—	—	—	—	.08	.25	.39	.19	.53	.56
Lindsay et al. (1994) Exp. 3	Seq	—	—	—	—	—	—	.00	.03	.11	.10	.88	.87
Tunnicliff & Clark (2000)	Sim	.53	.53	.25	.16	.22	.31	.03	.13	.31	.34	.66	.53
Clark & Tunnicliff (2001)	Sim	—	—	—	—	—	—	.05	.25	.50	.16	.45	.59
Brewer & Wells (2006)	Sim	.40	.34	.18	.17	.42	.49	—	—	.33	.33	.67	.67
Darling et al. (2008)	Sim	.49	.45	.06	.09	.45	.47	.04	.05	.16	.21	.81	.74
Tredoux et al. (2007)	Sim	—	—	—	—	—	—	.25	.42	.34	.12	.41	.46
Tredoux et al. (2007)	Seq	—	—	—	—	—	—	.21	.24	.14	.13	.65	.62
Carlson et al. (2008)	Sim	.31	.43	.22	.26	.47	.32	.16	.30	.51	.23	.33	.47
Carlson et al. (2008)	Seq	.41	.24	.20	.24	.39	.53	.20	.38	.16	.17	.64	.46
Gronlund et al. (2009)	Sim	.42	.37	.31	.40	.27	.23	.36	.37	.32	.27	.32	.36
Gronlund et al. (2009)	Seq	.31	.22	.25	.39	.44	.39	.28	.23	.28	.25	.44	.52
Charman et al. (2011)	Sim	—	—	—	—	—	—	—	—	.50	.40	.50	.60

Note. Exp = experiment; NR = not reported; sim = simultaneous presentation; seq = sequential presentation.

Appendix E

Diagnosticity Ratios for Lineups of High, Moderate, and Low Suspect-Filler Similarity

Similarity	Study	Culprit IDs	Innocent suspect IDs	Diagnosticity
High	Lindsay et al. (1991)	.767	.033	23.2
	Wells et al. (1993)	.214	.119	1.8
	Lindsay et al. (1994)	.660	.043	15.4
	Tunnicliff & Clark (2000)	.531	.031	17.1
	Darling et al. (2008)	.491	.035	14.0
	Carlson et al. (2008)	.360	.182	2.0
	Gronlund et al. (2009)	.364	.321	1.1
				$M = 10.7$
Moderate	Lindsay & Wells (1980)	.580	.410	1.4
	Lindsay et al. (1991)	.667	.200	3.3
	Wells et al. (1993)	.666	.119	5.6
	Lindsay et al. (1994)	.790	.149	5.3
	Juslin et al. (1996)	.200	.170	1.2
	Tunnicliff & Clark (2000)	.531	.125	4.2
	Darling et al. (2008)	.447	.047	9.5
	Carlson et al. (2008)	.327	.333	1.0
	Gronlund et al. (2009)	.296	.301	1.0
				$M = 3.6$
Low	Lindsay & Wells (1980)	.710	.700	1.0
	Wells et al. (1993)	.714	.429	1.7
	Lindsay et al. (1994)	.810	.338	2.4
	Juslin et al. (1996)	.520	.090	5.8
	Carlson et al. (2008)	.583	.505	1.2
	Gronlund et al. (2009)	.579	.436	1.3
				$M = 2.2$

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KEANDRE VALENTINE,) No. 74468
)
Appellant,)
)
vi.)
)
THE STATE OF NEVADA,)
)
Respondent.)
_____)

PHILIP J. KOHN Clark County Public Defender 309 South Third Street Las Vegas, Nevada 89155-2610 Attorney for Appellant	STEVE WOLFSON Clark County District Attorney 200 Lewis Avenue, 3 rd Floor Las Vegas, Nevada 89155 ADAM LAXALT Attorney General 100 North Carson Street Carson City, Nevada 89701-4717 (702) 687-3538 Counsel for Respondent
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