#### Simultaneous vs. Sequential Lineups

#### Gary L. Wells Iowa State University

Presentation to: *The Connecticut Eyewitness Identification Task Force* October 19, 2011 The Scientific Method for Studying Eyewitness Identification















### The Relative-Judgment Process

#### Eyewitnesses tend to select the person who looks most like the perpetrator <u>relative</u> to the other members of the lineup.

From: Wells, The Psychology of Lineup Identifications

#### From: What Do We Know About Eyewitness Identification? Wells, American Psychologist



21%

perpetrator might not be in the lineup

Removal-without replacement and relative judgment processes [from Wells, *American Psychologist*]



No choice = 21%

Removal-without replacement and relative judgment processes [from Wells, *American Psychologist*]







No choice = 21% **32%** 

The problem with the relativejudgment process is that some member will always look more like the perpetrator than the remaining members of the lineup; even when the actual perpetrator is not in the lineup.

#### The standard simultaneous procedure

















Steblay, Dysart, & Wells Psychology, Public Policy & Law, 2011

72 experimental tests using 13,143 participant-witnesses

**Results:** 

- Mistaken identifications from culprit-absent lineups were reduced by 22%
- Identifications of the culprit were reduced by 8%

Diagnosticity ratios: 7.72 for sequential and 5.78 for simultaneous



# What Happens with Actual Witnesses to Serious Crimes?

Many lab studies have used versions of the sequential that cannot or are not used in actual practice:

- 1.Backloading; Witness does not know how many to be viewed
- 2.Continuation procedure; Always go through the reminder, even if an identification is made on an earlier one
- 3.If more than one identification, let witness talk and resolve (but, a matter of record)
- 4.If witness requests a second "lap" then permit it (but, it is a matter of record...)

### The Simultaneous versus Sequential Field Experiment (2011)

### Four participating police departments:

- 1. Austin, TX
- 2. Charlotte, NC
- 3. San Diego, CA
- 4. Tucson, AZ

Funding:

- 1. Open Society Foundations
- 2. JEHT Foundation
- 3. Laura and John Arnold Foundation



The Simultaneous versus Sequential Field Experiment (2011)

Partners:

□Scientists:

Gary WellsNancy Steblay

Jen Dysart

Organizations

American Judicature Society

□Police Foundation

□Innocence Project

A Test of the Simultaneous vs. Sequential Lineup Methods

An Initial Report of the AJS National Eyewitness Identification Field Studies

GARY L. WELLS, NANCY K. STEBLAY, and JENNIFER E. DYSART





### Main Key Characteristics of the Study

#### Photo lineups

- Administered by laptop computer
  - All instructions follow protocol
  - All responses automatically entered in record
  - Random assignment at last second to simultaneous or to sequential
  - Random assignment at last second to order
- All double blind
- Single suspect embedded among five known-innocent fillers

### Plus...

- 1. Backloading; Witness does not know how many to be viewed
- 2. Continuation procedure; Always go through the reminder, even if an identification is made on an earlier one
- 3. If more than one identification, let witness talk and resolve (but, a matter of record)
- 4. If witness requests a second "lap" then permit it (but, it is a matter of record...)

🕦 SunGard Remote Lineup

#### SunGard Remote Lineup

HOUSTON POLICE DEPARTMENT



System File Update



Volume Check

A Adobe Adobe

Exit

Copyright © 1994-2009, SUNGARD OSSI











Network Connection (Connected)



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🔹 SHARING 🔍

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🔤 Lineup Archive	[Initial]			X
Sys ID	0	Agency		Remote Results <u>R</u> eport
Page 1 Witness In	nformation Ad	ditional Case Information 🛛 🖄	(orkflow	
Case #	-			Add User
Reason				Add Time // ::
Investigator			Supervisor Review	
Viewed By			Review Dat	e/Time //
Lineup Type	Q = Sequentia	il, S = Simultaneous, X = Cancelleo	1	
— Lineup Candidates	ı ———			
Name 1	0			
Name 2	0			
Name 3	0			
Name 4	0			
Name 5	0			
Name 6	0			
		Search	Remote Lineups	
		Next	Add Delete	Search Exit

🖘 Lineup Arc	hive [View]			X			
Sys D	26	Agency TPD		Remote Results <u>Report</u>			
Page 1 Witne	ss Information    /	Additional Case Information	Workflow				
Case #	081015-0999			Add User SA			
Reason	ARMED ROBBERY			Add Time 10/28/2008 10:47:			
Investigator	JOE FRIDAY		Supervisor Review				
Viewed By	PAUL WILSON	8	Review Date	еЛіте // ::			
Lineup Type Q = Sequential, S = Simultaneous, X = Cancelled							
— Lineup Candi	dates						
Nam	e 1 100	LOOKINGBILL, KASSY (WF 02	114/1973)				
Nam	e 2 200	HAYES, MARCY (WF 04/21/19	71)				
Nam	e 3 300	HAMMOND, ROBIN (WF 07/28/1	962)				
Nam	e 4 400	GRIFFIN, ROSEMARY (WF 02/2	6/1972)				
Nam	e 5 500	POLLEY, KELLY (WF 09/23/19)	78)				
Nam	e 6 600	DEFEYTER, DONYEL (WF 12/0)	7/1973)				
Available For Download							
		Next	Reget Option	View Exit Srch			

🖬 Lineup Archive [View]						
Sys ID 26 Agency TPD Remote Results Report						
Page 1 Witness Information Additional Case Information Workflow						
Witness Name PAUL WILSON Race W Sex M Ethnicity Age						
Current Description of Perpetrator VICTIM						
Date & Time Desc Given 10/28/2008 10:48:30 Approx. Distance From Perpetrator 10 FEET						
Period of Observation (min. sec.)						
Did Witness Encounter Suspect's Photo After Crime YES Did The Witness Receive Any YES Information After the Event Regarding a Potential Suspect?						
Was Witness Under the Influence of Drugs NO Number of Drinks 0 Period of Time and/or Alcohol At The Time of The Incident?						
Other Drug Types						
Does the Witness Wear Corrective Lenses?						
Was Perpetrator Previously Known By If Yes, How Well Did Witness? The Witness Know The Perpetrator?						
Did Witness Create a Composite Prior To If Yes, What System Used (freehand, Identi-Kit, etc.)						
Next Reget Qption ⊻iew Exit Srch						
Tell Lineup Archive [View]						
---	---------------------------	-------				
Sys ID 26 Agency TPD	Remote Results	eport				
Page 1 Witness Information Additional Case Information Workflow						
Crime Location						
Crime Type						
Crime Date & Time						
Lighting VVeather						
Weapon Used? If Yes, What Kind of Weapon?						
Number of Perp	etrators 0					
Number of Wb	nesses 0					
Did the Witness Observe Physical Vi	olence?					
If Yes, Was the Physical Violence Directed Against This W	/Itness?					
Did Witness Observe	Crime?					
Next Reget Option	<u>⊻</u> iew E <u>x</u> i	Srch				



🔤 Remote Lineup Display	Setup				
Witness Name PETERSO	N, SUSAN	Race W	Sex F	Ethnicity	Age 29
Lineup Information	Additional Witnes	ss Information		Additional Case	Information
Date/Time	01/21/2009 03:29:08 PM				
Location Shown					
Others Present				$\searrow$	
Lineup Administrator					
Language					
Language	ENGLISH				
	<u>S</u> tart Lineup 🧼	Ω	ancel 📀	3	

🔤 Remote Lineup Displ	ay Setup				X
Witness Name PETERS	SON, SUSAN	Race W	Sex F	Ethnicity	Age 29
Lineup Inforr sti	on Additional With	ess Information		Additional Case In	formation
Date/Tim Location Show Others Preser	n				
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🛤 Remote Lineup	Display Setup					×
Witness Name	PETERSON, SUSAN		Race VV	Sex F	Ethnicity	Age 29
Lineup Infe	ormation	Additional Witr	ess Information		Additional Ca	se Information
		9 03:29:08 PM ST SIDE HOTL				
Others Lineup Admi	Present SPOUSE					
La	anguage ENGLISH					
	St	art Lineup 🧼		<u>C</u> ancel	8	







Before viewing the lineup, you will be asked to review a set of instructions. After each instruction, you will be asked if you understand the instruction and wish to continue. Please click Continue to begin.







Before viewing the lineup, you will be asked to review a set of instructions. After each instruction, you will be asked if you understand the instruction and wish to continue. Please click Continue to begin.



#### 🚾 Remote Lineup Display Instructions

Our lineups never contain more than one suspect. However, one or more persons might be familiar to you for reasons unrelated to the crime. If you indicate that an individual is familiar, you will be asked whether the familiar person is related or unrelated to the crime. The officer may have additional questions for you.





#### 🚾 Remote Lineup Display Instructions

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# Do Any Of These Individuals Look Familiar To You?

Not <u>S</u>ure

No





4











3





# Do Any Of These Individuals Look Familiar To You?

Confirm 'YES' and Continue

<u>G</u>o Back





4















# Click the Photo of the Person Familiar To You

# Go Back





4







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You indicated that this person looks familiar to you. Do you recognize this person for reasons related to the crime or unrelated to the crime?

Confirm Related to the Crime

<u>G</u>o Back





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The officer would like to ask you some questions about your response. Please do not proceed until asked to do so by the officer.

# Continue

3





























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SUNGARD' PUBLIC SECTOR

# Thank You. The lineup process has been completed. The officer will take control of the computer.

End Lineup





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01/21/2009 15:40

Time Shown: 01/21/2009 03:29:08 PM

Start Time: 01/21/2009 03:32:31 PM

Lineup Id: 45

End Time: 01/21/2009 03:40:50 PM

Case	Id:	2006654321
------	-----	------------

Investigator: SGT. K.M. WILLIAMS

Shown By: M.G. KING

Viewed By: PETERSON, SUSAN

- Location Shown: OMNI WEST SIDE HOTL
- Others Present: SPOUSE OF VICTIM

Lineup Language: ENGLISH Multiple Yes Responses ?: No

Lineup Type: SIMULTANEOUS

\* Image(s) Familiar To Victim/Witness: 5

Ро	sition	Name
1		DAVIS, CHRISTINE (WF 10/11/1971)

3		JOHNSON, PAULA (WF 03/17/1972)
4		WILLIAMS, BARBARA (WF 09/29/1972)
* 5	0	KING, PATRICIA (WF 02/18/1969)
6	()	SMITH, ANGELA (WF 04/01/1970)

, MGARNER620 # mgarner			
	Austin Police	e Department	01/21/2009 15
<b>Case Id:</b> 20066543	21	Lineup Created By: SA	
Lineup Id: 45		Date/Time Created:	
Witness: PETERSON, SUS	SAN	Witness Type: VICTIM	
Race: W Sex: F	Ethnicity:	Age: 29	
Witness Description of Per	petrator		
Date/Time of Description	:	Period of Observation :	
Description:	Approx	imate Distance From Perp. :	
WF Approx 23 YOA			

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, MGARNER620 # mgarner

#### Page 2

# Austin Police Department

01/21/2009 15:40

Case Id: 2006654321

Lineup Id: 45

Lineup Created By: SA

Date/Time Created:

## Additional Case Information

Crime Location : MCDONALDS, ELM ST Crime Type : ARMED ROBBERY Crime Date:

Weapon Used (Y/N) : YES If Yes, What Type of Weapon : YES

**Environmental Information** 

## **Environmental Information**

Lighting : INDOOR

Weather :

Other

- Number of Perpetrators: 1
  - Number of Witnesses: 2

Did Witness Observe Physical Violence? : YES

If Yes, Was the Physical Violence Directed  $\operatorname{NO}$  Against the Witness :

Did the Witness Observe the Crime? : YES

Austin Police Department

01/21/2009 15:40

Case Id: 2006654321

Lineup Id: 45

Lineup Created By: SA

Date/Time Created:

#### Lineup Viewing Duration: 4 Min. 57 Sec.

#### Witness Lineup Activity Log

01/21/2009 03:37:22 PM: Responded 'Yes' to the question 'Do Any Of These Individuals Look Familiar To You? 01/21/2009 03:37:42 PM: Selected 'Confirm 'YES' and Continue' button. 01/21/2009 03:37:52 PM: Selected Image # 5 when asked to select the image familiar to the witness. 01/21/2009 03:38:14 PM: Selected 'Related to the Crime' when asked 'You indicated that this person looks familiar to you. Do you recognize this person for reasons related to the crime or unrelated to the crime? 01/21/2009 03:38:21 PM: Selected 'Confirm Related to the Crime' button 01/21/2009 03:39:47 PM: Activated the 'Continue' button 01/21/2009 03:40:44 PM: Responded 'No' To Question 'Do Any Other Of These Individuals Look Familiar To You?' 01/21/2009 03:40:46 PM: Selected 'Confirm 'NO' and Continue' button. 01/21/2009 03:40:50 FM: Activated the 'End Lineup Presentation' button to End Presentation

# For sequential, the only difference in instructions was this one:





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Does This Person Look Familiar To You?	Yes <u>N</u> o	Not <u>S</u> ure
	3	2





You indicated that this person looks familiar to you. Do you recognize this person for reasons related to the crime or unrelated to the crime?

#### Related to the Crime

#### Not Related to the Crime

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You indicated that this person looks		
familiar to you. Do you recognize this	Continue	
person for reasons related to the crime	Continue	
or unrelated to the crime?	<u> </u>	





The officer would like to ask you some questions about your response. Please do not proceed until asked to do so by the officer.











The officer would like to ask you some questions about your response. Please do not proceed until asked to do so by the officer.

Confirm 'NOT SURE' and Continue





The officer would like to ask you some questions about your response. Please do not proceed until asked to do so by the officer.

<u>C</u>ontinue





The officer would like to ask you some questions about your response. Please do not proceed until asked to do so by the officer.

<u>C</u>ontinue





			_	
Does This Person Look Familiar To You?	Yes	No		Not <u>S</u> ure

5



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Does This Person Look Familiar To You? Yes	No Not Sure
6	$\searrow$



# Does This Person Look Familiar To You? <u>C</u>onfirm 'N႙' and Continue <u>G</u>o Back





🖢 You are viewing: Chad Wilson's Desktop

😘 SunGard Remote Lineup - 01/21/2009 03:46:31 PM

72

SUNGARD' PUBLIC SECTOR

### Thank You. The lineup process has been completed. The lineup administrator will take control of the computer.

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#### End Lineup



SHARING 👻

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Processing...

D.

Austin Police Department			15:51	
Case Id:	2006654321	Time Shown:	01/21/2009 03:45:40 PM	
Investigator:	SGT. K.M. WILLIAMS	Start Time:	01/21/2009 03:46:22 PM	
Shown By:	LT. J.L. KING	End Time:	01/21/2009 03:51:32 PM	
Viewed By:	PETERSON, SUSAN	Lineup Id:	46	
Location Shown:	OMNI WEST SIDE HOTEL			
Others Present:	NO OTHERS			
Lineup Language:	ENGLISH	Multiple Yes Responses	?: No	
Lineup Type:	SEQUENTIAL			

\* Image Selected By Victim/Witness: 3

Posit	ion	Name	
1		DAVIS, CHRISTINE (WF 10/11/1971)	

### \* Image Selected By Victim/Witness: 3

Posi	ition	Name
1		DAVIS, CHRISTINE (WF 10/11/1971)
2	A	SMITH, ANGELA (WF 04/01/1970)
3		WILLIAMS, BARBARA (WF 09/29/1972)
4	<b>(</b>	JOHNSON, PAULA (WF 03/17/1972)
5	0	KING, PATRICIA (WF 02/18/1969)
6		JONES, WENDY (WF 02/02/1970)

#### Statement of Crime (Question Presented to the Victim/Witness During Image Viewing):

Does This Person Look Familiar To You?

#### Image Responses:

Image 1) (1) NO Image 2) (1) NO Image 3) (1) YES (Related To Crime) Image 4) (1) NOT SURE Image 5) (1) NO Image 6) (1) NO

#### Viewing Durations:

Image 1) (1) 0 Min. 33 Sec. Image 2) (1) 0 Min. 8 Sec. Image 3) (1) 0 Min. 31 Sec. Image 4) (1) 0 Min. 17 Sec.

#### Image Responses:

Image 1) (1) NO Image 2) (1) NO Image 3) (1) YES (Related To Crime) Image 4) (1) NOT SURE Image 5) (1) NO Image 6) (1) NO

2

#### Viewing Durations:

Image 1) (1) 0 Min. 33 Sec. Image 2) (1) 0 Min. 8 Sec. Image 3) (1) 0 Min. 31 Sec. Image 4) (1) 0 Min. 17 Sec. Image 5) (1) 0 Min. 7 Sec. Image 6) (1) 0 Min. 6 Sec.

### **Does This Person Look Familiar To You?**





## Main Results

### Percentages of Witnesses Identifying the Suspect, a Filler, or Making No Identification for the Simultaneous and Sequential Procedures [N = 497]



### Percentages of Suspect and Filler Identifications Among Those Who Made an Identification







## Summary of Results

Sequential produced a lower rate identifying known-innocent fillers



- Sequential was as effective as simultaneous in the rate of identifying the suspect.
- Outright rejections of the lineup were considerably more common for the simultaneous than for the sequential.



## Implications

To the extent that filler identifications are a good proxy for assessing risk for innocent suspects, the sequential is safer for an innocent suspect.

Filler identifications are a problem in any case because the identification of a filler "spoils" the witness for any later attempt to view a lineup.



## FAQs

How many fewer identifications of innocent suspects (as opposed to fillers) with sequential?

- •No way to know *quantity* from these data only the direction (fewer)
- •Estimated # of ID cases in U.S. not definitively known
- •One estimate says > 75,000 ID cases estimated by survey of prosecutors. If only 25% of ID attempts are ID of the suspect, then 300,000 lineups?

This, if true, would mean 18,000 fewer filler IDs

## FAQs

<u>If</u> the "rate ratios" of filler picks for the sequential/simultaneous also holds for innocent suspect pick rates, then:

i.e., the sequential rate of mistaken identification would be 67.4% of the rate of the simultaneous

## A Commonsense Reason to Favor the Sequential

If the eyewitness has a credible memory, why should it matter whether the lineup is done sequentially or simultaneously?

Can I see the rest before I make a decision on this one?

