Combating Confirmation Bias

Can Forensic Science Benefit from Importing Eyewitness Identification Procedures?

Jeff Kukucka, Ph.D.
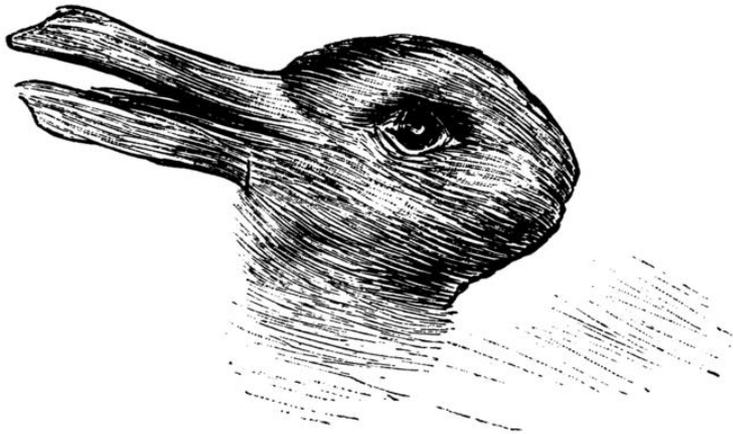
TOWSON
UNIVERSITY

Two Types of Processing
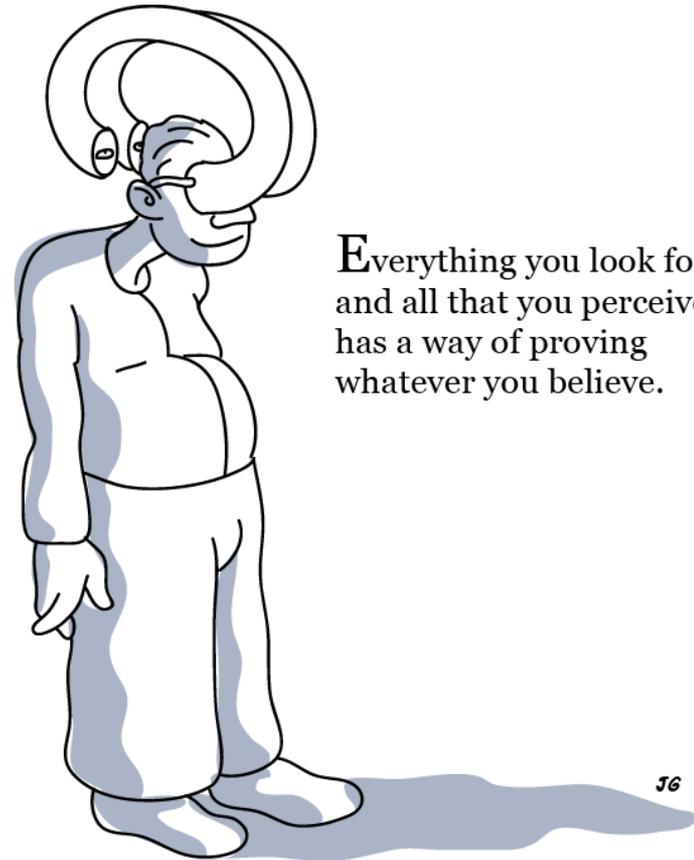

BOTTOM-UP

TOP-DOWN

Confirmation Bias

Welche Thiere gleichen ein-
ander am meisten?

Kaninchen und Ente.

… a **rabbit** or a **duck**?

(Jastrow, 1892)

Everything you look for
and all that you perceive
has a way of proving
whatever you believe.

Forensic Confirmation Bias

Miller (1984)
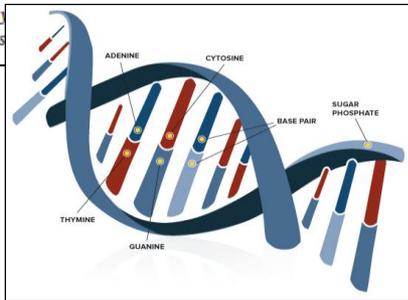
Elaad et al. (1994)

Dror & Charlton (2006)

Target article

The forensic confirmation bias: Problems, perspectives, and proposed solutions

Saul M. Kassin[a,*], Itiel E. Dror[b], Jeff Kukucka[a]

[a] John Jay
[b] Univers

Dror & Hampikian (2011)

Bieber (2012)

Nakhaeizadeh et al. (2014)

Example: Barry Laughman

- Laughman confesses to rape and murder of elderly neighbor

- Rapist has Type A blood; Laughman has Type B blood

- Chemist concocts theories that reconcile blood with confession

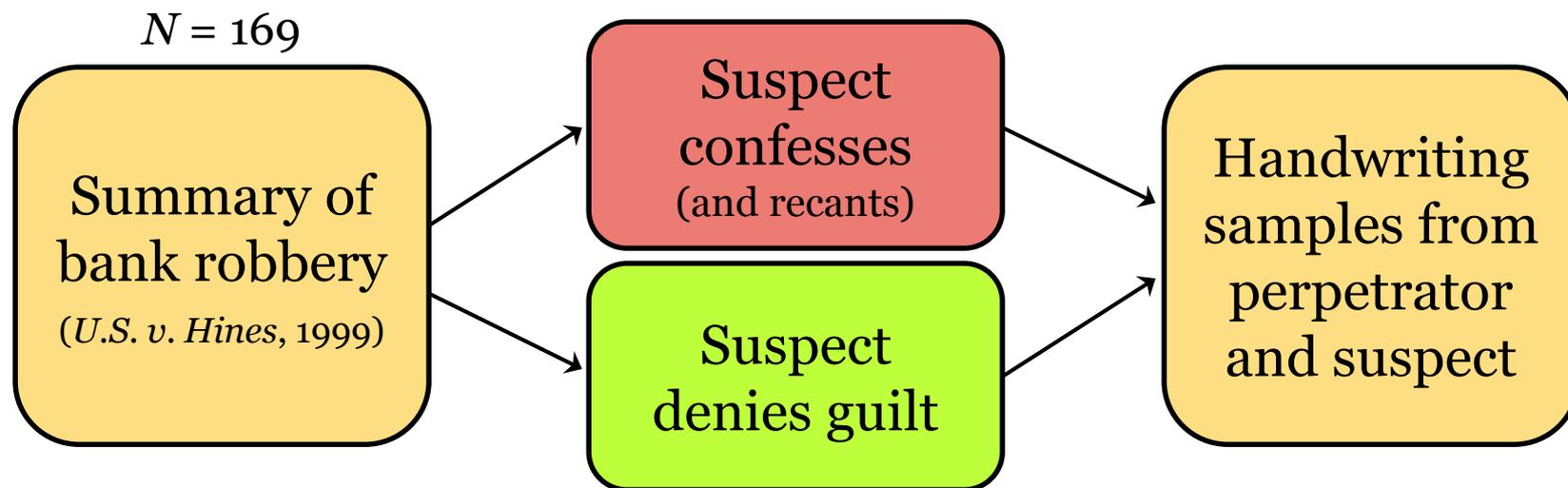- Served 16 years in prison

Overall Aims

- Studies 1 + 2 (Kukucka & Kassin, 2014)

  Does knowledge of a recanted confession affect subsequent judgments of handwriting evidence?

- Studies 3 + 4 (Kukucka & Kassin, under review)

  How does the adoption of eyewitness identification procedures affect context-laden judgments?

Study 1 Method

N = 169

Summary of bank robbery
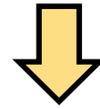(*U.S. v. Hines*, 1999)

Suspect confesses
(and recants)

Suspect denies guilt

Handwriting samples from perpetrator and suspect

IV

Confession =
Present / Absent

DVs

• Similarity (1-10)

• Match? (Yes/No)

• Verdict (G/NG)

Materials

I understand my rights to remain silent and to call a lawyer and I agree to talk at this time.

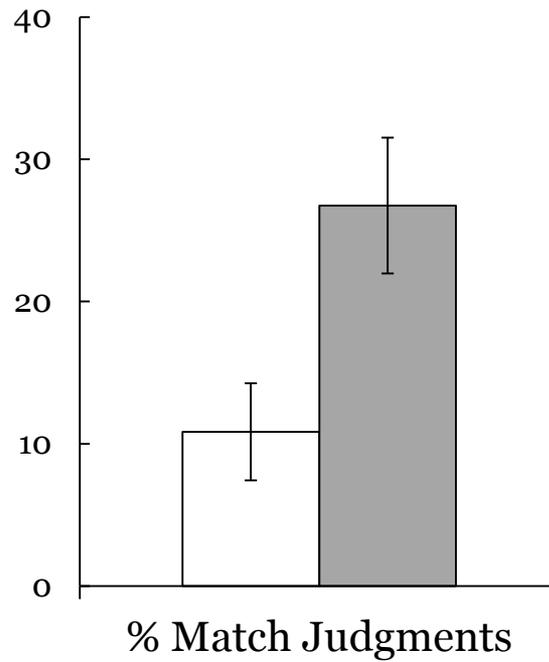I have a gun. keep quiet or I will shoot you. Give me all your cash!

OR

I have a gun. keep quiet or I will shoot you. Give me all your cash.

Study 1 Results

| Denial | Confession |

Similarity Rating (1-10)

p = .061
d = 0.27

% Match Judgments

p = .008
OR = 3.00

% Guilty Verdicts
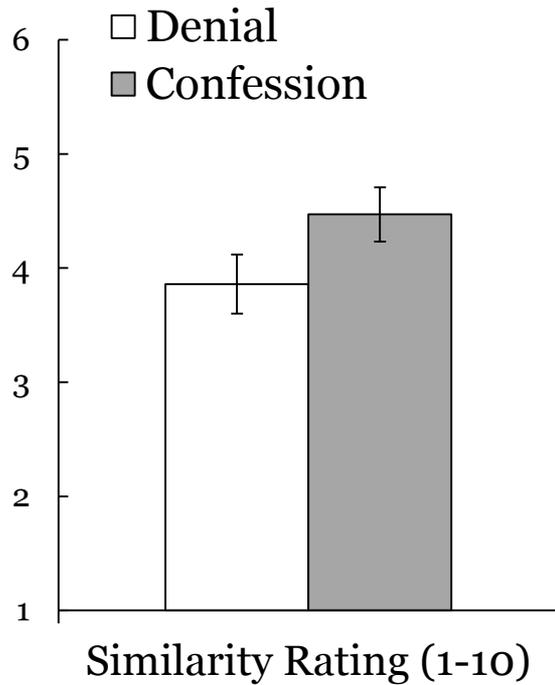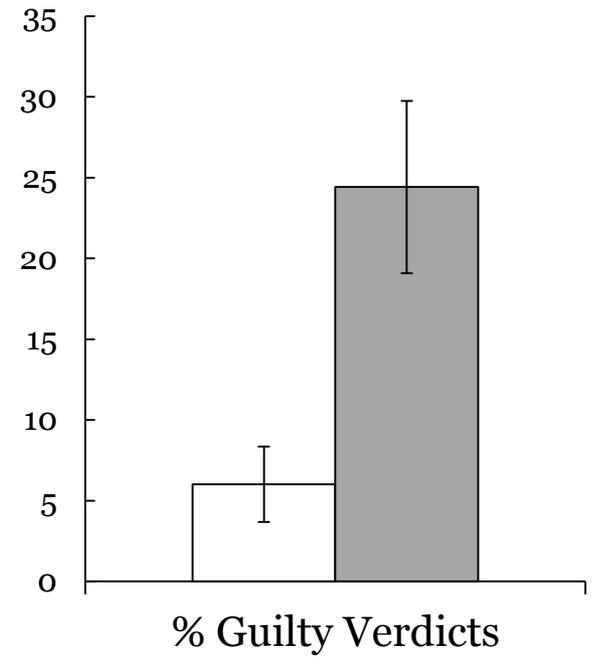
p = .001
OR = 5.04

Study 2 Method

Time 1

N = 245

Time 2

N = 128

Rate pairs of HW samples (no context)

ONE WEEK

Read summary of bank robbery

Confess

Deny

Control

IV

Re-rate HW samples from Time 1

DVs:
Change over time

- Similarity (1-10)
  - Match? (Y/N)
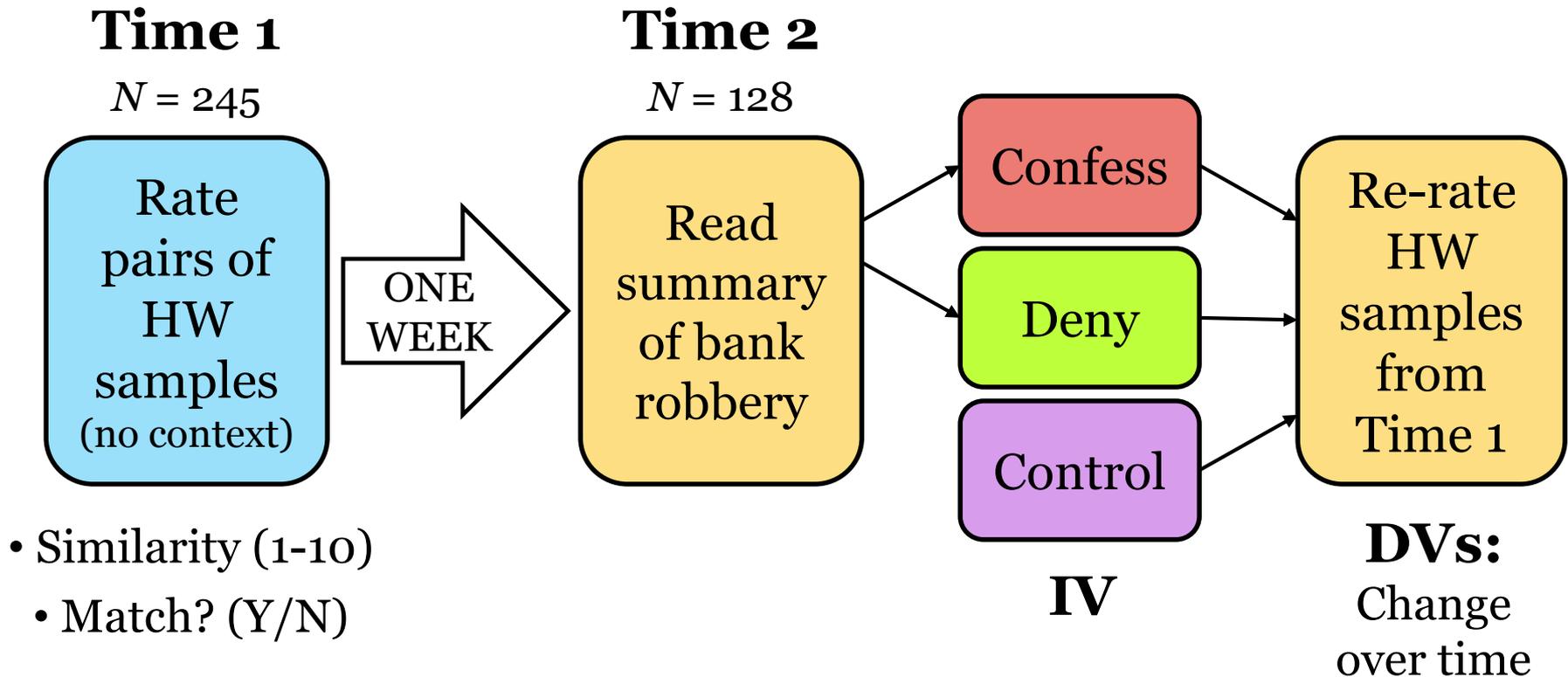
Study 2 Results
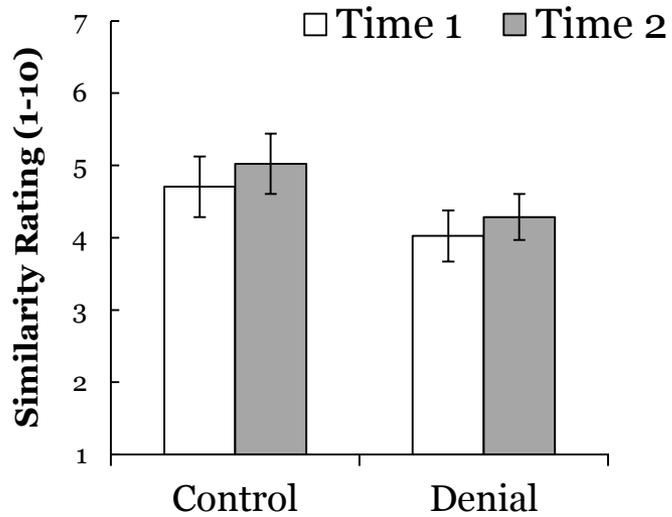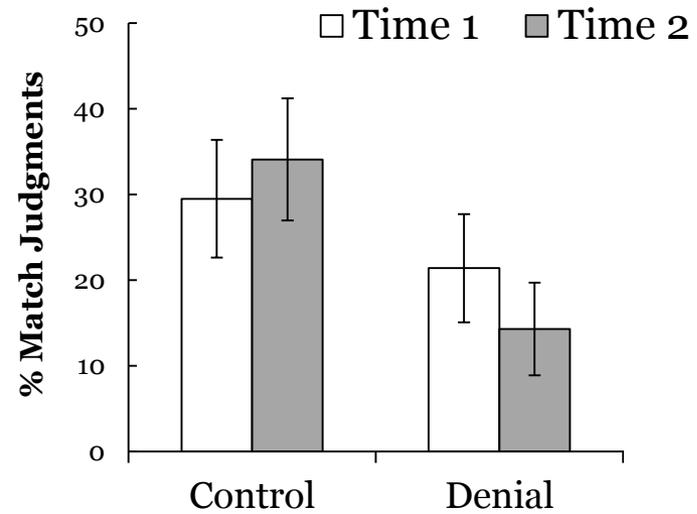
Evidence Lineups

Whitman & Koppl (2010)

e.g., Dysart & Lindsay (2007)

Miller (1987); Wells, Wilford, & Smalarz (2013)

e.g., Wells et al. (1998; 2000)

Study 3 Method

Materials
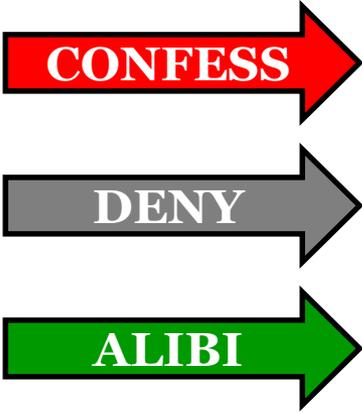
Exhibit A:

Chelsea Police
19 Park Street, Chelsea, MA. 02150

Chief of Police
Office: (617)
@chelseama.gov

I understand my rights to remain silent and to call a lawyer and I agree to talk at this time.
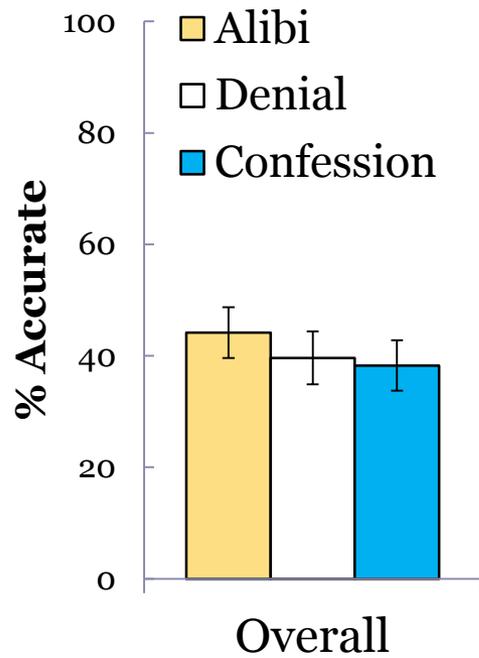
Exhibit B

I have a gun.
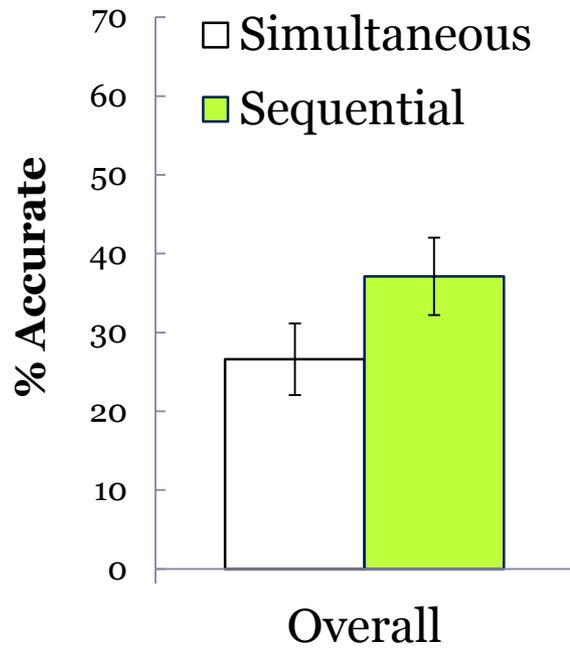Keep quiet or I will shoot you.
Give me all your cash!

Exhibit C

I have a gun.
keep quiet or I will shoot you
Give me all you cash!

Exhibit D

I have a gun.
Keep quiet or I will shoot you
Give me all your cash!

Study 3 Results

Study 4 Method

$N = 230$

Sim   Seq

CONFESS

DENY

Study 4 Results

Discussion

Sequential unmasking

Krane et al. (2008); Found & Ganas (2013)

Evidence lineups

Miller (1987); Wells et al. (2013)