Errors of eyewitness testimony

- Eyewitness testimony -> wrongly convicted of crimes
- Of 1st 180 exonerations in US, mistaken eyewitness id testimony involved in 75% cases
  - Ramona case
    - Claimed molested between 5-16 by father
    - Memory recovered through therapy
  - Ingram case (Text – Eileen Lipsker/George Franklin)
    - Sheriff accused by daughter of sexual abuse and satanic rituals (murder of best friend)
    - Denied crime initially, but provided story during jail time
  - Friedman case
    - Charged with child sexual abuse of kids at home day care
  - Michaels case
    - 5yrs in prison for abusing children at day care
    - Overturned because of how children were questioned
Real or false memory?

- What is accuracy of eyewitness testimony?
- Is it possible to not be able to recall a traumatic event and later remember it?
  - Recovered memory
  - Is it therapeutic to recall “forgotten” memory
- Is it possible to recall an event that never occurred?
  - False Memory Syndrome
  - A false but strongly believed memory of traumatic experience
- How can we distinguish false from implanted memory?
- What are the typical eyewitness testimony testimony errors?
Can someone repress memories? Repression of child sexual abuse

- Williams: 33% of sexual abuse victims w/o memory
- Freudian defense mechanism
  - Inaccessible to conscious to protect self
- Memories contradict self-schema
  - Clinical dissociation
- Directed forgetting
  - Embarrassment and shame
- No rehearsal
  - Ordinary forgetting
- False memory syndrome
  - False but strongly believed traumatic memory
  - http://www.fmsfonline.com/
Controversy involving therapists: Methods to “recover” memory

  - “If you are unable to remember a specific instance.. (of sexual abuse) but still have a feeling that something abusive happened to you, it probably did.”

- Leading questions
- Guided visualization
- Age regression
  - Act out role of childhood self
- Hypnosis
- Sodium amytal
- Bibliotherapy
  - Read books about others’ recollections of childhood abuse
Eyewitness testimony accuracy

- Attention errors
  - Effect of emotion
- Familiarity errors
  - Ironic effects of implicit memory
- Errors due to misinformation effect
- Errors due to feedback
  - Change in confidence level
- Others?
  - Effect of age of decision maker
  - In-group/out-group errors
Attention errors
Stanny & Johnson (2000)

- Video of simulated crime – life-size projection
- Exp 1: 40 police officers
  - Shoot vs. no shoot condition
  - Attempted abduction vs. Domestic disturbance
  - Surprise questionnaire for recall of details
- Exp 2: 13 undergrads and 16 police officers
  - Shoot vs no shoot condition
  - Same video except final 3s
  - Expected memory questionnaire and stress rating
  - Measures of physiological arousal (similar to GSR)
### Stanny & Johnson (2000)

#### Exp 1

**Table 1. Mean Proportion Correct Recall as a Function of Shoot Condition and Type of Detail**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Perpetrator</th>
<th>Victim</th>
<th>Weapon</th>
<th>Action</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoot</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>.33</td>
<td>.53</td>
<td>.54</td>
<td>.54</td>
<td>.58</td>
</tr>
<tr>
<td>SD</td>
<td>.094</td>
<td>.103</td>
<td>.204</td>
<td>.286</td>
<td>.326</td>
</tr>
<tr>
<td>No shoot</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>.51</td>
<td>.73</td>
<td>.73</td>
<td>.59</td>
<td>.76</td>
</tr>
<tr>
<td>SD</td>
<td>.146</td>
<td>.123</td>
<td>.195</td>
<td>.250</td>
<td>.271</td>
</tr>
</tbody>
</table>

**Weapon focus**

1. Memory for perpetrator worse when weapon present
2. Tendency to remember weapons better than other info
Figure 1. Mean electrodermal response (EDR) as a function of shoot condition and time for police and citizen witnesses. The arrow indicates the point in the scenarios when a shooting occurs.
Ross et al. (1994)

- **Result:**
  - 3x more likely to pick male teacher as robber if actual robber not in pics

- **Textbook:**
  - Effect of familiarity

- **Other interpretations?**
  - Source memory error
From the lab to the police station
Wells, et al. (2000)

- Establish rapport
- Encourage to volunteer information without prompting
- Open-ended, non-leading questions
- Caution against guessing
- Identification procedures
  - Prelineup instructions: Can say not there
  - Use “fillers” that look similar to suspect
- Avoid post-identification suggestions
- Sequential lineup (instead of simultaneous)

http://www.psychology.iastate.edu/faculty/gwells/homepage.htm
Lindsay & Wells (1980)

(a) Perpetrator in lineup

(b) Perpetrator not in lineup
Photo line-ups

- Bloodsworth case: convicted of rape/murder
  - Only one in lineup with same hair as composite pic
- Composites: lead to real perpetrator or innocent person?

Fig. 1. Progressive sequence of building a composite face using the FACES 3.0 (IQ Biometrics) program. The eyewitness begins with any feature and adds features in any order. In this case, hair (upper left) is followed by eyes (upper middle); head shape and eyebrows (upper right); nose (lower left); lips and jaw shape (lower middle); and forehead lines, eye lines, smile lines, mouth lines, and chin lines (lower right).
Composites usually not similar to target face

Frowd et al (2005): Ss named 2.8% of famous face composites

Regardless of:

- Familiarity of face
- Type of task to assess similarity

But, morphing composites increases likeness
Links

- Wells
  - http://www.psychology.iastate.edu/faculty/gwells/homepage.htm
- Loftus
  - http://socialecology.uci.edu/faculty/loftus/
  - http://www.innocenceproject.org/
- Eyewitness evidence: guide for law enforcement
- “What Jennifer Saw”
  - http://www.pbs.org/wgbh/pages/frontline/shows/dna/