



# EFFECTS OF OLDER AGE ON EYEWITNESS MEMORY

## Cognitive Development and the Law

### WHY DO WE CARE?



- **Compelling evidence.** Eyewitness memory can be the **main source** of evidence in criminal cases. [28]
  - **Eyewitness memory:** memory for a **crime** or **dramatic event** that he or she **witnessed**. [36]
- **Wrongful convictions.** Falsely identifying someone can lead to an **innocent person** being **punished** and the **criminal** going **free**. Eyewitness testimony accounts for **70%** of **358 wrongfully convicted** in the US (Innocence Project). [35]



### AGE-RELATED EFFECTS AND MEMORY PROBLEMS



- More likely to accept **false information** as **true**. [3]
- More likely to **claim remembering false information**. [9]
- More likely to be **misled** by **false information**. [13]
- More likely to have **false memories** of an **event**. [4]
- More likely to **identify the wrong person**. [5]
  - More **lenient** when **identifying** people. [6]
- **More confident** in their responses. [14]
- Reduced **source memory:** memory for the **origin of information**. [1]
  - **Reduces** accuracy of **source attributions: assigning** information to its **source**. [15, 2]
  - **Less accurate** in determining **who did what** in an event. [7]
- Reduced **working memory** capacity, which allows us to **hold** and **use** information. [10]
- Decline in **memory** for **details**, leading to **false recognition**. [25]
- Rely on **gist** and **plausibility** of information. [11]
  - The **gist** of information is **automatic** and **preserved** with age. [12]



### ARE OLDER ADULTS ALWAYS LESS RELIABLE WITNESSES?

- A **similar ability** to young adults in identifying the **correct person**. [8]
- Possibly **more accurate** when identifying someone in **own age group** (own-age bias). [21]
- When the **event** is very **short**, older adults may be **more resistant** to **suggestion** as they are **less likely** to **encode** (learn) the **misinformation** (false or inaccurate information). [30, 24, 29]
  - Observed for **cued-recall:** remembering using **hints**. [31]
  - **Younger adults** able to **encode information easier**, including **misinformation**, or they might use certain **strategies** to remember the misinformation. [33]



### IMPROVING THE RELIABILITY OF OLDER WITNESSES



- **Sequential over simultaneous lineups.** Encourage absolute judgements over relative judgements. [18]
  - **Sequential lineup:** a lineup in which **each member** is presented **one at a time**. [26]
    - **Absolute judgement:** witness **compares** each member of the lineup with his or her **memory** of the **perpetrator** to decide who the culprit is. [16]
    - Reduces **identifications** of **innocent** people by **reducing choosing rate**. [22]
    - **Encourages** more **strict** identification **criteria**. [19]
  - **Simultaneous lineup:** a lineup in which **all members** are presented at **once**. [27]
    - **Relative judgement:** witness **compares** each member of the lineup to **each other** and decides who **most closely resembles** the perpetrator. [17]
- **Pre-lineup questions.** Encourage eyewitnesses to be **more cautious** and reduce the **feeling** that they have to **choose** someone. [20]
- **Pre-lineup instructions.** **Inform** the witnesses that the culprit **may or may not** be **present** and aid witnesses in **remembering** these instructions. [23]
- **Context reinstatement.** Mentally **recreate** the **environment** surrounding the **event** through interviews, instructions, or photographs. [34]
- **Assess free recall first.** This allows the older adult to **tell their story** without **planting suggestions** during direct questioning. After this, use **open-ended questions**. [32]

