

Observation & Inference Unit Notes (Unit 2)

Observation Skills

By the end of this unit you will be able to:

- Define observation and inference
- Describe examples of factors influencing eyewitness accounts of events
- Compare the reliability of eyewitness testimony with what actually happened
- Relate observation skills to their use in forensic science
- Practice and improve your observation skills

What Is Observation & Inference?

- **Observation** is anything that you can perceive with your senses. An observation is the awareness of some condition.
- **Inference** is an idea formed by processing data gathered through observation. It is the result of a mental process that attempts to explain or speculate about that observation.
- For example, if I **observe** that a box has the label "Paint" on it, I could make an **inference** that the box contains paint, but I wouldn't know for sure until I opened the box and observed that there was indeed paint inside the box.

A Good Forensic Examiner must be able to:

FIND — identify the evidence at a scene

DOCUMENT — record all information about the evidence

INTERPRET — accurately determine the significance of the evidence

Our Brains Tend to Fill in Gaps in Our Perception

- In order to make sense of what we perceive, our brains often enrich with detail what we see, taste, hear, smell, or feel
- After an event, we can believe things were part of the background even though they were not

Example: Read This Paragraph Quietly to Yourself

Olny srmat poelpe can raed tihs. I cdnuol't blveiee taht I cluod aulacly uesdnatnrd waht I was rdanieg. The phaonmneal pweor of the hmuan mnid, aoccdrnig to a rscheearch at Cmabrigde Uinervtisy, it deosn't mtttaer in waht oreldr the ltteers in a wrod are, the olny iprmoatnt tihng is taht the frist and lsat ltteer be in the rghit pclae. The rset can be a taotl mses and you can sitll raed it wouthit a porbelm. Tihs is bcuseae the huamn mnid deos not raed ervey lteter by istlef, but the wrod as a wlohe. Amzanig huh? Yaeh and I awlyas tghuhot slpeling was ipmorantt!

How to be a Good Observer

- **Observe systematically**
 - Start at one part of a crime scene and run your eyes slowly over every space
 - Look carefully at details of each piece of evidence
 - Do not assume that later on you will be able to remember everything
- **Turn off filters**
 - Do not pay attention to only what you *think* is important.
 - At a crime scene, you will not know what will ultimately turn out to be important.
 - Make a conscious effort to pay attention to all the details in your surroundings.
- **Collect information first, interpret data later**
 - Look for **patterns** and make **connections**
 - **More information** yields better interpretations
 - Understand that biases and prejudices exist everywhere
 - In eyewitness accounts
 - In your own thinking processes
- **Document, Document, Document!**
 - Write down and photograph as much information as possible
 - Be aware that memory is faulty
 - Remember that our brains tend to fill in gaps in our perceptions

Summary:

- Make a conscious effort to examine environment systematically.
- Observe everything.
- Pay attention to details.
- Turn off filters. Do not pay attention to only what you *think* is important
- Gather information **first** before starting to analyze or interpret it.
- Write down and photograph as much as possible.
- Document! Document! Document!

Eyewitness Testimony: Is it Reliable?

The Facts

- Eyewitness testimony has a far greater effect on jurors than it should, given that it is often inaccurate.
- Many cases of wrongful arrest and conviction are due to mistaken identification made by eyewitnesses.
- In this country, it is estimated that **75%** of wrongly convicted defendants, later cleared by DNA evidence, were convicted based largely on eyewitness testimony

Flashbulb Memories

- Many victims of crimes have something that is called a **flashbulb memory**
- This is a vivid **recollection** of **dramatic** or **emotionally charged events**
- Unfortunately, we do not remember things exactly. Our brains instinctively fill in gaps in our perception.

Perceptual Fallacies

- Our normal perceptions do not correspond directly to reality.
- The things that we perceive (see, hear, smell, etc.) are not entirely determined by what our senses detect.
- Our perceptions are also determined by **what we expect, what we know, what we believe.**

According to Research...

- Studies show that the longer it takes an eyewitness to decide if the perpetrator is in a lineup, the less confident they are about their decision. Why?
- Eyewitnesses typically take several minutes to point out the perpetrator because they often feel pressured to choose the correct one
- However, if they are truly confident, they should be able to decide in **under 10 seconds**

Choosing From a Lineup

- Research indicates that an eyewitness is more likely to falsely identify a person in a set of lineup photographs if there is anything that separates one picture from another
- For example:
 - If one picture is larger than the others
 - If facial features in all the photographs are not identical

What Makes Memories Inaccurate?

- Reports from individuals about crime scene events often vary.
- Eyewitness accounts provide direct evidence to crime scenes
- Perceptions **can be faulty**

Observations may be affected by a witness':

- emotional state
- level of interest
- stress
- concentration
- amount/kind of distraction
- poor lighting
- motives

Other Possible Explanations

- Distance in viewing
- Short exposure
- Something covering the perpetrator's face (i.e., a mask)
- Presence of a weapon
- What type of and how much activity was going on around them
- The own-race bias (the tendency for people to recognize faces of their own race more accurately than faces of other races)

The Brain is Not a Video Recorder

- Memory doesn't really work like a video recorder, and so information that people get about an event after it occurs can actually get incorporated into their memory and then they remember it later as though it had already happened at the earlier time.

Eyewitness Testimony Can Be Influenced

- In other words, if I question you after the event, I plant a piece of information by a leading question - 'What color was his moustache?' - when the guy didn't have a moustache. Then later on, the person may remember a moustache.
- That's called post-event information.

Questioning an Eyewitness

Good Interview Practices

- Get a statement as close to the event as possible
- Place the witness in the event environment
- Before asking questions, ask the witness to recreate the incident in his/her mind
- Start with unprompted recollection
 - Use open-ended questions
- Tell the witness:
 - That they should do most of the talking
 - Not to edit their thoughts; they should say whatever comes to mind
- Record both the questions asked as well as the answers
- Have the witness tell the story from beginning to end and then from the end to the beginning
- Have the witness tell the story from different perspectives (victim, other witnesses, suspect)
- Follow-up with specific questions
- Elicit partial information

Avoid...

- Leading Questions
 - Example: "Was the man wearing a black jacket?" Why could this question present a problem?

- It doesn't leave room for **open-ended answers**
- It encourages eyewitness **to reinvent memories** (in this example, it coerces eyewitnesses into believing the man was wearing a particular color jacket, just like I convinced you that you saw pictures that weren't really there)
- Asking questions in a rapid-fire manner
 - You need to go slow
 - You need to give the witness time to think
- Asking the same questions more than once
- Multiple-choice questions
- Interrupting the witness
- Nonverbal cues or language indicating your own opinion

Summary

- The environment and our natural sensory filters affect our ability to observe
- Eyewitness reports can be correct, faulty, or a little of both
- Acquiring good observation skills takes practice and training