

How Reliable Are Eyewitness Accounts in Drone Sightings?

There has been a lot of research related to eyewitness testimony over the years. What we are likely to see can be influenced by many different factors including our emotional state, our recall of events and even how we are questioned.

If the [UK Airprox Board](#) is to be believed, there has been a sharp increase in drone sightings over the last five years. Many of these incidences depend on independent eyewitness reports from pilots with little or no mechanism in place to test their veracity.

1. Distance and Eyewitness Reports

Drone sightings often occur at a fairly large distance when pilots are either taking off or landing. That can lead to mistakes when it comes to identification. A [Study in 2014](#) clearly showed that the accuracy of eyewitness identification steadily declines as distance increases. Not only that, as the distance grows, eyewitnesses have a tendency to use guesswork to ‘fill in the gaps’ rather than what they actually saw.

The study used 195 college students who were asked to identify 8 people at varying distances. The researchers found that for every 91 cm increase in distance, the propensity for making a correct identification decreased by half a percent. Perhaps more important for the research was that witness bias grew with distance – in other words, the subjects own personal cognitive make-up also plays a part, something which is discussed in point 3 below.

2. Viewing Conditions

Just as distance can make a difference, so can external viewing conditions. For example, was it night or day when a drone was spotted? Was it a clear day or raining? A research paper by Thomas D Albright from the [Salk Institute for Biological Studies in California](#) concluded:

“Estimator variables include such things as the viewing conditions (e.g., lighting, distance, duration), the presence of distracting stimuli (e.g., weapons, bright lights, loud noises), and internal states of the observer (e.g., attention, motivation, skill, prejudice).”

According to a [2001 study by Otto MacLin](#), the length of time a person is exposed to an eyewitness event (in this case the face of a suspect) was also an important factor in misidentification. Pilots can often have just a fleeting view of a suspected drone which could well impact on the accuracy of their identification.

A study by [Yarmey, Jacob and Porter in 2002](#) found that the time given to identify and process information about a subject made a difference to the accuracy of eyewitness reports. Subjects were given 5 and 30 seconds to witness an event or person and their recall improved the longer they were able to view.

3. Reconstructive Memory

One of the key factors in erroneous eyewitness testimony seems to be what we remember of the event when questioned at a later date. We tend to look at memory as a recall device similar to a video playing back of the event. This is actually quite far from the truth, something we have known for close to a century.

The most famous study dates back to [1932 by Bartlett](#) which showed that what we remember is always influenced by what we know about the world and what we have learned to expect. This

classic study used a story which was told to a certain number of people and then passed on as word of mouth to others. By the time it reached the last subjects, the story had changed considerably.

One huge factor in eyewitness reporting is [confirmation bias](#). Put simply, if we're expecting to see something, then we are more likely to see it. Pilots, for example, who have been influenced by media stories or union guidance may be likely to falsely identify an object as a drone and report it as such simply because it fits in with what they are expecting to see. An object seen fleetingly could just as well be a party balloon rather than a drone or model aircraft.

There are different types of memory and confirmation bias. In a study by [Brewer and Treyens in 1981](#), the research showed that we have an innate ability to make assumptions depending on what we expect to see in a particular environment. That causes us to also remember things generically rather than accurately.

Another factor in eyewitness testimony which is similar to reconstructive memory or confirmation bias is false memory. There have been numerous studies into how this can be implanted and how difficult it is to get rid of once we perceive a memory as being real. In one example, [Bernstein, Laney, Morris, & Loftus in 2005](#) introduced false memories to a group of 336 subjects that they had suffered from food poisoning as children. The ones who had been provided with false memories were more likely to report feeling sick after eating that particular food.

4. Age and Eyewitness Testimony

Even the age of the eyewitness can make a difference to recall according to some research. A [study published in 2013](#) found that younger participants had more accurate recall than older ones, which you would expect, but that both were influenced by incidental learning to about the same degree. Another [study by Stanley and Blanchard-Fields in 2010](#) found that confirmation bias increases with age, presumably because we have more information to process.

5. How Eyewitness Testimony is Gathered

Another factor that is often forgotten is how [eyewitness testimony is gathered](#) in the first place. In the area of crime, police now need to follow certain guidelines such as not leading a witness when they are gathering eyewitness accounts and using certain procedures when using lineouts. It's easy to influence someone to say something slightly different to what actually happened as the research shows.

A study by [Loftus, Miller and Burns in 1978](#) discovered that different answers can be gleaned from eyewitness reports depending on the questioning. Subjects were shown a car hitting a pedestrian and then interviewed about it with misleading questions added into the mix. They were then asked to choose between two slightly different slides of the event. The researchers found that those who had been fed false information or bias often chose the incorrect slide.

Eyewitness Accounts: Summary

Eyewitness reports are often presented as compelling evidence in court cases despite research that suggests they can be inaccurate and subject to bias. The studies carried out over the last forty or so years, however, have led to changes in the way that eyewitness testimony is gathered.

While most of the research has been focused on the evidence provided in criminal cases, it has relevance in other areas. The potential for errors to be made in the reporting of drone sightings is a case in point.