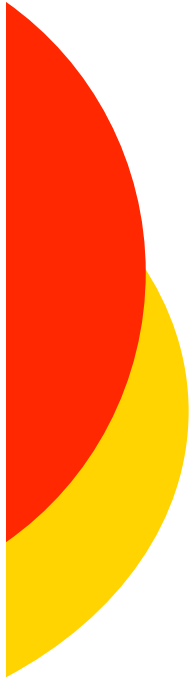




Subconscious Evidence

Forensic Science



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- Subconscious evidence refers to the details investigators are able to deduce from a suspect's subconscious actions. Such evidence is not solid, but are useful guidelines for determining someone's emotions/honesty during an interview.



Polygraph Testing

- When police are interviewing suspects, it is often difficult to spot if someone is lying or not. The invention, created in the 1920's, known as the polygraph, has proved a very useful tool during interviews for police
- Polygraph testing is used to measure the body's response to stress. It involves a pair of plates that are attached to the suspect's fingers. These are for measuring the skin's resistance or sweat levels. Rises in blood pressure and the speeding up of the pulse rate indicate stress. A sphygmomanometer is placed around the suspect's arm to measure these levels. Heavy breathing represents anxiety and is measured using pneumographs wrapped around the chest. All of these test results are recorded by the computer along with the questions that caused the response.



Lying To The Polygraph

- Though it may seem like the polygraph test could never be incorrect, many of the subject's responses are not clear. There are many reasons for this including alcohol and drug use and even hunger, which also affect the results. Pathological liars have their own methods of cheating the machine, including simple pain inflicting techniques such as biting their tongue. By inflicting pain on themselves, this affects the results on the machine. The fear and anticipation of having to undergo one of these polygraph tests also affects the results. Investigators often only have to threaten the use the polygraph test, also known as a 'lie-detector', for the person to change their guilty/innocent plea out of fear.



Other Testing Methods

- Where the polygraph tests have failed to reveal the truth, newer technologies have stepped in with the answers. One new method involves testing the electrical currents that move through our brains when we think using a machine known as an electroencephalograph. Researchers who work with this technology focus on one wave in particular, the P300, or the wave that surges when we see something we recognise or remember. The P300 is monitored by showing the suspect pictures and words not associated with the crime scene and then showing them pictures of or relating to, the crime scene. When the suspect recognises the crime scene, there is no way of cheating, as you can't stop yourself from reacting to familiar things. When falsely accused, the suspect's brain waves will stay the same throughout the entire process.



Body Language

- A suspect's body language, mannerisms and gestures can often tell police when a suspect is lying to them. For example, children often cover their mouths after lying and in adults; they often touch their chin after lying. Suspects fiddling with their hands, watch or sleeve cuffs is thought to be a disguised crossing of the arms, another method which prevents them from expressing what really happened.