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Forensic Science is Faulty Science

Forensic Science is the application of science to criminal and civil laws. During criminal investigations evidence is analyzed to assist the criminal procedure. Such evidence may include: blood, hair, saliva, fingerprints, etc. The use of forensic evidence in trials has been around since the 1800's. It was significantly applied in 1888, during the Jack the Ripper case in London, England when doctors were allowed to look at the wounds on the victims bodies (New York State Police). Forensic evidence has become widely used, especially in the past 50 years, probably in hundreds of thousands of cases worldwide. However, in the last decade forensic science has been called "Junk Science". It has got that nickname, because of the reported high error rates. Also jurors are led to believe that forensic science is way more reliable than it actually may be, which affects the way they will judge the defendants on trial. This is called the CSI: Effect (Ferraro). Forensic science is not an accurate form of evidence collecting, because there are too many variables for things that can go wrong. The tests that are currently used are mostly outdated or faulty. An example of that is the bite mark test, some bites cannot even be determined to be human or animal. The chance for human error is too great. The FBI lab by itself had over 200 mistakes in 2016 alone. Most of the labs are severely underfunded. The lack of

monetary support causes a variety of problems. Tests that are outdated cause too many errors with the results of analyzed evidence for them to be valid.

A major issue for the forensic science field is old and outdated test being used to analyze evidence. Not only do these tests give bad results, but they sometimes even attribute to innocent people being imprisoned, while the guilty go free. In Harris County, Texas the District Attorney has dismissed the cases where the defendants falsely pleaded guilty to drug possession based on faulty drug tests. They also established a new policy that won't accept plea deals for drug possession until a lab has come back with the results (Innocence Staff). The President's Council of Advisors on Science and Technology (PCAST) have released reports that found that tests such as, the hair, bite mark, and shoe prints "do not pass the objective test for scientific validity" (Ciaramella). The problem with the bitemark test is that often skin will move so the impressions on the skin will move as well (Why Some Forensic Evidence Isn't…). So most of the time the examiner cannot be 100% sure that they have identified the impression correctly. I think you should include a specific example of a case where this happened. Have you watched the show "The Last Defense?"

Even though there have been mistakes made, researchers still believe that forensic science is very accurate and the tests used are proven valid. One example of a test that is very accurate is a test that recovers the Diatoms on one's person to determine where they have been. Diatoms are microorganisms that can be found anywhere in water. The way that these are used to assist law enforcement is forensic examiners try to collect these from the body and since Diatoms are unique they can be traced to certain areas. This especially helps when police need to know if a body was drowned and dumped somewhere else or if the person accidentally drowned

(Scott). Although, Diatoms are very resourceful there are more test that aren't as accurate, such as the fire accelerant test. Many fire examiners will testify that if they can tell where a fire started. However, a study conducted by the American Association for the Advancement of Science (AAAS) has found that only 13 out of 53 fire investigators could correctly determine where the fire originated. So only 25% of the fire investigators were accurate. This is only one example of how inaccurate forensic science really is. Another example of a faulty test is the hair test. How the hair test works is you take your sample piece of evidence and the sample from the suspect and put them both under the microscope and look to see if the hairs match each other (French). Basically, we're relying on forensic examiners to be 100% sure they're accurate 100% of the time they perform these types of tests. That's not something that any human could ever live up to. This is just one more example of how inaccurate forensic science is and how the tests currently used aren't accurate.

Although, human error is a natural part of everyday life, it much more common in forensic science than we all would like to believe. A report released by the National Institute of Standards and Technology (NIST) noted that 149 potential human errors in the analysis of crime scene fingerprints. There are many factors that could affect the amount of mistakes made when analyzing evidence such as, inadequate training, poor judgement, lack of sleep, and stress (Newman). Reports from the National Research Council of the National Academies has reported that 85% of examiners made at least one mistake (Ulery, Bradford, et al). From 2008 to 2012 a study was conducted at Netherlands Forensic Institute (NFI) trying to estimate causes of forensic failures related to the laboratory process, which were contamination and human error

(Kloosterman, Ate, et al). The amount of errors in forensic science is one main reason why it's not very accurate.

Analyzing crime scene evidence isn't cheap. There is so much equipment and supplies that have to bought just to keep these labs operational such as, gloves, microscopes, testing vials, etc. This is not even considering the salaries that the examiners are paid and the utility bill. Forensic science is a high demand practice, coupling that with insufficient funds has led to less-reliable results. The lack of funding causes a backlog at these labs. Backlog is a pile of evidence that has yet to be analyzed by examiners. While this evidence is in the backlog, it can degrade making it unusable to the police or it may become contaminated also making unusable. While the evidence goes untested innocent and guilty people can be imprisoned, while waiting on trials or out on bond. It puts public safety at risk when dangerous criminals are out on the streets while they await trial (Owens, Gerald, et al). An article by the Innocence Project notes that reliable and timely lab findings are critical to help ensure that the Innocent are identified (Innocence Staff). Labs that aren't given the proper amount of money to keep them running make mistakes, take to long to process evidence, or put the wrong people in jail.

In conclusion, forensic science cannot be an accurate form of evidence analyzing, because there are too many things that go wrong. The tests that the examiners currently use are not accurate. These tests give faulty results and cannot be trusted. An example of this happening is when a Mississippi man, Kennedy Brewer, was arrested and charged with the raping and for capital murder of a three-year-old girl. He was arrested in 1992 and in 2001 he was exonerated for the crime, only after Mississippi did post-conviction DNA testing. Kennedy wasn't the only man exonerated, another man named, Levon Brooks, was charged with a similar crime was also

found to be innocent after serving 16 years (Love). One of those tests was so inaccurate that it isn't in use anymore. The chance for human error is too great. The examiners mostly used their best judgement when analyzing evidence. The majority of forensic labs are severely underfunded. The lack of money can seriously impact the accuracy of their results. Forensic science in its current condition is not accurate, but with some updates, more experience, and a larger allocation of funds the field of forensic can be more valid.

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