

How DNA Identification and Forensic Science Changed Criminal Investigations



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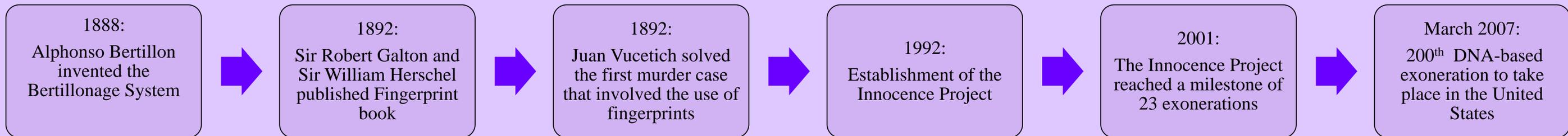


Figure 2. This timeline (above) illustrates how crime solving has come a long way.

INTRODUCTION

Despite efforts being made in the use of eyewitness testimony and fingerprints, the analysis of DNA is considered the most reliable identification method in modern society. According to the Innocence Project, mistaken eyewitness identification is a factor 73 percent of exoneration cases that would later be overturned by DNA in the U.S. Other causes that have proven to contribute to the injustices of wrongfully convicted persons are inaccurate forensic science, false confessions, and fraudulent statements delivered by informants. While the main purpose of the Innocence Project is to exonerate wrongfully convicted persons, by means of DNA testing, this national litigation clinic is aiming at reformation of the modern criminal justice system, with an ultimate goal of eradicating future injustice (“The Innocence Project,” n.d.).

METHODOLOGY

A literature review, composed of a series of peer-reviewed articles, informational brochures, books, and websites was conducted to determine how DNA has come to be the most reliable identification method in solving crimes. In addition, its important role in exonerations of wrongfully convicted persons was explored. An understanding of the roles that other, traditional identification methods - such as fingerprints and dental records - play in cracking cold cases and identifying missing persons was also gained in this literature review.

Leading Factors in Wrongful Convictions

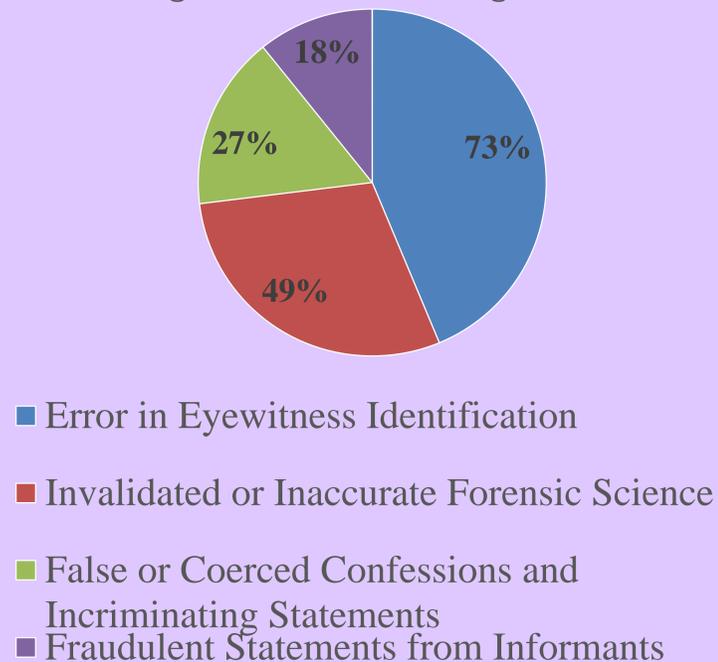


Figure 1. Error in Eyewitness Identification is the factor in 73 percent of wrongful convictions that would later be overturned by DNA. This data was taken from http://www.innocenceproject.org/Content/DNA_Exonerations_Nationwide.php#

CONCLUSION

Since science is constantly changing and establishing more enhancements, the techniques are more sensitive, more prompt, more precise, more dependable, more efficient, and require little to almost no labor. Forensic DNA techniques began to improve in the mid-1980s, along with developments in both science and technology (Kobilinsky, Liotti, & Oeser-Sweat, 2005, p. 289). With significant funding and financial assistance from federal and state legislatures, user-friendly and multi-functional, state of the art technologies in forensics have been established by the FBI. With the development and enhancement of automation and robotic technologies, the future of solving crime in modern society by means of science and technology is very promising.

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