



D81 Homicide or Suicide: The Shotgun is Twenty-One Feet, Six Inches From the Victim's Body

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After attending this presentation, attendees will understand the necessity of experimentation to prove or disprove a theory when it involves criminal investigations. Students will receive information on a specific case where a 12-gauge pistol-grip pump shotgun was found approximately 21.5 feet away from the truck where a victim was found in the driver's seat with a contact gunshot wound to the chest. Determining how the shotgun got that far from the vehicle where the deceased was found was one piece of the puzzle to help to determine homicide or suicide.

This presentation will impact the forensic science community by showing how experimentation to prove or disprove, teamwork of forensic disciplines, and good old-fashioned investigation can come together to provide a more confident conclusion in determining the outcome of an equivocal investigation.

On January 10, 2011, a white male entered a local market and purchased a random pick lottery ticket for a date in the future. A few minutes after leaving the store, the store owner and his adult son heard what sounded like a backfire or a gunshot. The adult son went outside to the parking lot and found a white Ford F-350 pickup truck with the driver's window down and the white male lying back against the driver's seat, bleeding from the chest.

When emergency personnel arrived, it was evident the white male was deceased. The scene was secured by local law enforcement. Detectives noted a Mossberg 12-gauge pistol grip pump shotgun 21.5 feet away from the driver's door of the truck. In addition, there was not any visible blood found on the shotgun. The driver's side mirror was spattered with blood and a few drops of blood were found on the ground just below the mirror. The ignition was in the "on" position with the radio on, but the truck was not running.

The manner of death is partly based on investigation, forensic evidence, and sometimes good old-fashioned gut feeling or experience. Facts, forensic and investigative, are the only parts of information that really count when it comes to making a decision on what happened. In this particular investigation, theories were developed as to how the shotgun ended up 21.5 feet from the victim's body. Gut feelings are not facts, but are merely a platform to develop a theory or theories. Experience is not a fact either it is just a better way to develop a more accurate prediction of "what happens when." When experiments are conducted, "what happens when" can often end up with a surprising result, either proving or disproving a theory.

When a theory is developed, it needs to be proven or disproven using scientific method. As much as possible, the original circumstances need to be replicated. In this particular investigation, the original shotgun and same type of ammunition were used. All other circumstances had to be replicated by using a different truck, but in a location with a similar type of asphalt surface. Cushions and clothing were used to construct a dummy in which to shoot. For safety purposes, the experiments were conducted at a police range under the supervision of the police range master.

The key to experimentation is planning and flexibility. Accounting for every circumstance is impossible; therefore, adjustments in methodology and/or the hypothesis may have to be considered. Flexibility is important to be able to make the adjustments during experimentation. Keep in mind things can happen more than one way. In this case, more than one person was surprised with "what happens when."

Theory, Scientific Method, Experimentation