

"Absence of Evidence is Not Evidence of Absence"

An individual's freedom, or his incarceration, is becoming increasingly more dependent upon expert testimony. Opinions of such expert witnesses are derived primarily from the examination of physical evidence and are given as conclusions. These opinions often either substantiate or negate an individual's involvement in a violent act as well as identifying links between the crime scene, the victim, and the suspect.

Bloodstain pattern interpretation is one method utilized when attempting to link a suspect with a violent bloodshedding act. Thus, it is obvious that the presence of bloodstaining on a suspect could link a suspect to a violent act; but how can the absence or lack of bloodstaining affect the probability of one's noninvolvement in a violent act?

The complete absence of bloodstains on a defendant or his clothing is frequently assumed by many to be definitive evidence that the defendant did not directly participate in a violent act. This is a misconception fostered and exploited by those who have insufficient knowledge and experience in bloodstain pattern interpretation, or by those who hope that such an opinion would aid in their client's defense. Explanations for the lack of bloodstaining on an individual who has actively participated in a violent act are innumerable. These include the assailant cleaning-up prior to his being apprehended, removal of his clothing prior to committing the act, or simply not being stained because spattered blood was intercepted by some intermediate target.

A literature search indicates that the absence of bloodstaining on an assailant has been of concern for an extended period of time. The classic work of Eduard Piotrowski [1] in 1895 supports the opinion that an assailant does not always become bloodstained during a violent attack. Piotrowski conducted several experiments where live rabbits

were bludgeoned or stabbed. He observed that the individual who inflicted the injuries did not always become bloodstained as a result of his active participation. Piotrowski wrote that, "The degree of spattering sustained by the perpetrator cannot be reduced to hard and fast rules, due to the irregularity of drops flying in all directions."

In 1906, Hans Gross [2] concurred with Piotrowski's findings when he reported on cases where very little, if any, bloodspatter was evident on an assailant after taking part in a violent attack. Later, in 1914, Ernst Ziemke [3] reported on a case wherein he stated, "It is thoroughly erroneous to think that the offender must have been heavily blood spoiled when he inflicted severe wounds on a victim by opening his arteries."

The report by Dr. Fritz Reuter, published in 1933 [4], describes conclusions he had made earlier in 1927. He wrote, "There are no common guiding rules on how to identify existing bloodstains on cloth or hands of the accused. Very often the question was asked as to why the accused did not have bloodstains on himself considering the way he injured the victim. This question can only be answered by taking into account all the circumstances of a particular case. Stabbing or even injuring the artery does not mean that the accused must have blood on his hands or clothing."

Walcher [5] also concluded that it is not uncommon for an offender to avoid bloodstaining of his or her clothing, even though a great deal of bloodspatter was present at the crime scene. Dr. Walcher's remarks were made in his 1939 review of the available literature he had at that time.

The literature does not address the question as to why one perpetrator will become heavily bloodstained from a violent act while another individual who commits a similar act receives no staining whatsoever. Gross [2] urged investigators to proceed with extreme caution before they draw conclusions as to the possible significance of the lack of bloodstains.

One could hypothesize numerous theories but never adequately answer the question of why the degree of bloodstaining on an assailant varies. Expert opinions should never be based upon what one would expect to be present, but rather they should be based upon what is physically present. If bloodstains can be seen, and if there are enough

to constitute a geometric pattern, it may be possible for a competent analyst to interpret that pattern.

Literature we have reviewed is in good agreement with our own experiments. With this data and with the experience we have gained from investigating hundreds of criminal cases, we conclude that the absence of bloodstaining on a suspect's clothing should neither exonerate, nor implicate, his involvement in a violent act. The authors have investigated numerous cases where an assailant was not bloodstained at all or had very little bloodstaining on his clothing as compared to the amount of bloodspatter that was present at the crime scene. Although we are frequently asked to testify suggesting there is some significance to the absence of bloodstaining, we reply that we can only interpret the bloodstains that are physically present. No one should speculate as to why a defendant was not bloodstained except in the most unusual cases. We stress this opinion whenever we are asked this question in court.

Exceptions to this rule do occur, however. Such cases are unusual in their physical evidence. For example, in a case in the Southwest, a woman was believed to have shot her husband using a .357 Magnum. The entrance wound in the victim's forehead exhibited classic stellate lacerations. Blood, tissue, brain substance, and bone fragments erupted from the wound and spattered over the bed, the head board, and much of the bedroom. The wife of the victim was wearing a white, long sleeved nightgown which did not have even one small bloodstain. Her children ran into the bedroom which gave her no time nor opportunity to change her clothes. In this case, the absence of any bloodstaining on her nightgown was very good evidence that she could not have fired the fatal shot.

The presence of bloodstaining on an assailant is the only physical evidence a bloodstain pattern examiner should use when drawing conclusions from a defendant's clothing. The lack of bloodstaining on the defendant should only be used as a reason for further investigation. In some instances, assailants have been known to either commit beatings, stabbings, or shootings while nude, clean-up after the crime, change their clothing, or confess to a crime that was actually committed by another individual.

A former student submitted a case involving a double homicide where both victims suffered multiple, near contact wounds to the head and upper torso with a .38 caliber handgun. A large amount of bloodstaining was present at the scene. The individual who confessed to the

crime said he was wearing the same outfit that he wore when he allegedly committed the murders, a white jogging suit and sneakers. The short time between the crime and the apprehension of the suspect precluded any clean-up effort. No blood was observed nor was any chemically detected on the suspect or any of his clothing. The question we were asked was, "Did this individual commit the crime?" Obviously, this was a case where the lack of bloodstaining provoked further investigation. However, should no exculpatory evidence be discovered, the absence of evidence is not evidence of absence.

If no plausible explanation is offered for the absence of bloodstaining, unsubstantiated speculation as to why a defendant was not bloodstained is unwarranted. Counsel should be referred to the literature where numerous references state an assailant is not always bloodstained as a result of his/her active participation in a bloodletting event.

Assailants may often take extreme measures to prevent bloodstaining of their clothing and themselves before, during, and after engaging in a violent act. Hofmann [6] referred to a case where a suspect had removed all of his clothing prior to his committing a murder. In a second case he described where a psychiatric patient wrapped himself in an extra linen in order to prevent bloodstaining of his clothes prior to his committing a murder.

The basis of the bloodstain pattern interpretation discipline is the geometric analysis of the static aftermath that results from a violent act. From such an analysis we attempt to reconstruct the prior events that could have happened to produce the patterns that we have observed. There is no basis for opinions on the absence of bloodstaining if they can not be substantiated through the medium of science. In 1938, Professor Orsos [7] made a study in Budapest that demonstrated how the areas of bloodspatter from a blow with an instrument were greatly influenced by the shape of the instrument. For example, his diagrams of a flat surface impacting a victim's head will restrict the upward bloodspatter as compared to a head being struck by an object having a cylindrical geometry. Simply stated, beating someone's head with a 2" x 4" doesn't spatter blood upwards as much as if a baseball bat had been used. It would be erroneous to say an individual could not have participated in a bloodshedding act based solely upon the apparent lack of bloodstains on his or her clothing and/or person. It may be equally erroneous to implicate any individual on an absence of other types of physical evidence.

One must always know the limitations of his/her discipline as well as his/her own personal limitations within that discipline. Each person must be able to determine when he or she is close to exceeding either of these limitations and never go one step beyond.

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