Serial Killers With Military Experience: Applying Learning Theory to Serial Murder

Tammy Castle
Christopher Hensley

Abstract: *Scholars have endeavored to study the motivation and causality behind serial murder by researching biological, psychological, and sociological variables. Some of these studies have provided support for the relationship between these variables and serial murder. However, the study of serial murder continues to be an exploratory rather than explanatory research topic. This article examines the possible link between serial killers and military service. Citing previous research using social learning theory for the study of murder, this article explores how potential serial killers learn to reinforce violence, aggression, and murder in military boot camps. As with other variables considered in serial killer research, military experience alone cannot account for all cases of serial murder. Future research should continue to examine this possible link.*

The term *serial murder* was first introduced to differentiate between individuals who killed over a prolonged period of time and mass murderers who killed several victims in one episode. Although the term was not popularized until the 1980s, serial murder has existed for hundreds of years. The first documented case of serial murder occurred in the 15th century. Gille de Rais, a French nobleman and friend of Joan of Arc, was executed for torturing and murdering approximately 100 children (Newton, 2000).

Although serial murder remains a relatively rare phenomenon, the number of serial murders has risen in the United States in the past 20 years. Hickey (1997) profiled 337 cases of serial murder that occurred in the United States from 1800 to 1995. The majority of these cases (302) occurred between 1980 and 1995. Although serial killings appear more frequently, a portion of this increase may be due to enhanced technology that allows law enforcement officials the necessary information to link possible serial homicides. In addition, media attention has played a large part in increasing public awareness of serial murder. However, media attention alone cannot account for the increase in serial murder during the past couple of decades. Regardless, serial murder remains a rare occurrence (Hickey, 1997).

The study of serial homicide remains in its infancy. Studies have focused on the motivation and causation, which has encompassed biological, sociological, and psychological factors. Scholars have examined whether the propensity for serial murder is the result of heredity, head trauma, environmental factors, parental influences, or mental illness. There are no variables that can account for all cases

of serial murder. Therefore, research must continue in this area to determine what other factors contribute to the making of a serial killer. One link observed in the case studies of serial killers is that some of them have served time in the military. This link has not been addressed in previous literature on serial murder, although the military is a social context that promotes violence and aggression. Therefore, the focus of this article is to explore the military as a social context where future serial murderers may learn the necessary skills to kill.

DEFINITIONS OF SERIAL MURDER

Serial murder is a term generally used to describe murders that are committed sequentially or in repetition. In the early 1980s, FBI officials first used the term serial murder to define this phenomenon and distinguish this type of murder from mass murder. Serial murder was defined by law enforcement officials as sexual attacks and resulting deaths of young women, men, or children committed by male killers who tend to follow physical or psychological patterns (Egger, 1998).

In 1988, the FBI revised their definition, describing serial killings as three or more murders committed separately, with an emotional cooling-off period between the homicides (Gerberth & Turco, 1997). Also in 1988, Brooks, Devine, Green, Hart, and Moore published a report offering a more detailed definition of serial murder. The report defined serial murder as

> a series of two or more murders, committed as separate events, usually, but not always by an offender acting alone. The crimes may occur over a period of time ranging from hours to years. Quite often the motive is psychological, and the offender's behavior and the physical evidence observed at the crime scenes will reflect sadistic, sexual overtones. (p. vii)

Holmes and DeBurger (1988) described five elements that further distinguished serial murder from other types of multiple homicide. The first element contained repetitive homicides. The serial killer continued to kill during a period of months or years. The second element explained that these murders were typically one on one, although some "team killers" did exist. The third element suggested that serial murder rarely occurred between people who were intimates. Typically, no prior relationship existed between victim and killer. The fourth element implied the serial killer felt a compulsion to kill; thus, the murders were not crimes of passion and did not stem from victim precipitation. The fifth element suggested that economic motives may have been missing in most cases of serial murder.

In 1990, Egger limited the definition of serial murder to include seven major components. The first component of serial murder is when one or more individuals commit a second and/or subsequent murder. The second component asserts there is generally no prior relationship between victims and attacker. Third, the

subsequent murders take place at different times and have no apparent connection to the prior murder. The fourth characteristic is that the murders are usually committed in different geographical locations. Fifth, the motive is not for material gain. Rather, the motive is the murderer's desire to have power or dominance over victims. Sixth, victims may have symbolic value for the murderer. The murderer may also perceive victims as powerless given their situation in time, place, or status within their immediate surroundings. For this reason, the seventh component is that victims tend to be those who are most vulnerable, least valued, or marginalized by our society. These include the homeless, prostitutes, homosexuals, vagrants, missing children, individual women out alone and moving in isolated areas, college students, older women, and migrant workers (Egger, 1990).

Some researchers suggest that Egger's (1990) definition is too specific and that a broader definition of serial murder should be used. Hickey (1997) argued that the definition of serial killers should include anyone who commits multiple murders during an extended period of time. Many women who commit multiple murders often kill acquaintances or are motivated by profit. Hickey's definition of serial murder would encompass more women in this otherwise predominantly male phenomenon.

Although scholars disagree on the precise definition of serial murder, psychological factors are often examined in research on serial homicide. The heinous nature of serial murder propels many to question the sanity of those who commit such crimes. The next section will discuss the issue of mental illness in the case of serial murder.

MENTAL ILLNESS

Many people in society prefer to explain serial murder by labeling killers as insane. However, most serial killers are not insane. Using the legal definition of insanity, the vast majority of serial killers know the difference between right and wrong at the time of commission of the crime. Fewer than 4% of serial killers have attempted to use insanity as a defense. Only 1% of those who used this defense were found not guilty by reason of insanity (Schechter & Everitt, 1996). Compared with other cases of homicide, less than 1% of these used insanity as a defense. Only 25% of these cases were successful ("The Insanity Plea," 1993). Although it is not insanity, most scholars agree there is some pathological process associated with the commission of such crimes (Carlisle, 1993).

Norris (1988) took a biological approach to serial murder. In his book *Serial Killers*, he suggested some serial killers may be suffering from a neurological disorder. This is often due to head trauma they experienced in childhood. The head trauma may damage certain areas of the brain, causing episodic aggressive behavior.

Although Norris (1988) focused on structural brain abnormalities, he acknowledged the contributions of environmental and psychological factors. Norris noted 21 patterns indicative of episodic aggressive behavior, including

> ritualistic behavior, masks of sanity, compulsivity, search for help, severe memory disorders, chronic inability to tell the truth, suicidal tendencies, history of sexual assault, deviant sexual behavior and hypersexuality, head injuries or injuries that occurred at birth, history of chronic drug or alcohol abuse, alcohol or drug-abusing parents, victim of physical or emotional abuse, cruel parenting, result of unwanted pregnancy, product of a difficult gestation period for the mother, interrupted bliss or no bliss in childhood, extraordinary cruelty to animals, arsenal tendencies without obvious homicidal interests, symptoms of neurological impairment, evidence of genetic disorders, or feelings of powerlessness or inadequacy. (pp. 222-223)

Some serial killers have suffered episodes of psychosis, neurosis, and paranoia. Episodes of psychosis involve the individual having some form of break with reality during which they may exhibit dangerous or violent behavior. Neuroses, on the other hand, are less severe and include many of the behaviors associated with personality disorders (Hickey, 1997). Paranoia is the sense that an individual is being endangered, threatened, or plotted against. Paranoia is symptomatic of many neuropsychiatric disorders including senility, seizures, brain damage, and schizophrenia (Lewis, 1998).

Schizophrenia is often first diagnosed in the teenage years or the early 20s. Symptoms include disorganized thought processes, psychosis, hallucinations, delusions, and feelings of being controlled from the outside. There are different subtypes of schizophrenia; however, most fall within the categories of paranoid or nonparanoid (American Psychiatric Association, 1994).

Paranoid schizophrenics are often associated with unprovoked bouts of violence. In most cases, the violence is due to hallucinations or delusions (Brizer & Crowner, 1989). Some report hearing voices that command them to kill. David Berkowitz, also known as "Son of Sam," tried to use schizophrenia as a defense at his trial. Berkowitz claimed that the next door neighbor's dog commanded him to kill but later recanted (Newton, 2000).

Violence in schizophrenics is often committed during a psychotic episode. However, few believe that this explanation holds true for serial murderers. Some single episodes of homicide can be accounted for by temporary insanity due to schizophrenia, but there has never been an authenticated case of a schizophrenic committing serial murder (Hickey, 1997).

Other types of mental illness that have been used as an explanation for serial murder fall into the category of dissociative disorders. One of these illnesses, dissociative identity disorder (DID), is also known as multiple personality disorder. DID is characterized by the existence of two or more different personalities or personality states (American Psychiatric Association, 1994). Psychologists believe that DID develops in response to some traumatic experience in childhood. The personalities develop as a way to dissociate from the pain of the experience.

Kenneth Bianchi, also known as one of the Hillside Stranglers, attempted to create an alternate personality named Steve. Bianchi, however, was faking DID and was found competent to stand trial. DID has been used successfully as a defense in one instance of a single homicide. However, it too has never been authenticated in any serial killer (Hickey, 1997).

Biological abnormalities and severe mental illness are rare in serial killers. However, some pathological process is often present. The most common psychological factor experienced by serial killers is a personality disorder. The next section will discuss the types of personality disorders that are most commonly associated with serial killers.

PERSONALITY DISORDERS

Personality disorders, unlike severe mental illness, are often difficult to detect. Individuals with personality disorders do not show any overt symptoms such as those associated with psychoses or schizophrenia. Personality disorders are insidious and often present as simply aspects of an individual's character (Wishnie, 1977).

The *Diagnostic and Statistical Manual of Mental Disorders-IV* (*DSM-IV*; American Psychiatric Association, 1994) is the guidebook used by psychiatrists, psychologists, and social workers to assess and diagnose mental disorders. The *DSM-IV* describes personality disorders as "enduring patterns of inner experience and behavior that deviate markedly from the individual's culture" (American Psychiatric Association, 1994, p. 629). For a personality disorder to be diagnosed, the *DSM-IV* states that two of the following four areas must be affected: cognition (perception and interpretation of self, others, and events), affectivity (intensity, range, and appropriateness of emotional response), interpersonal functioning, and impulse control (Hickey, 1997). The most common personality disorder linked with serial killers is antisocial personality disorder (Johnson & Becker, 1997).

Historically, the term *psychopath* was used to describe someone that today would be diagnosed with antisocial personality disorder. In the 1960s, a psychopath was characterized by lacking feeling toward other humans, being emotionless, showing no remorse, acting on impulse without thought, and lacking drive or motivation. Psychologists also acknowledged the lack of any psychoses or mental deficits (Craft, 1966).

In 1976, Hervey Cleckley released a publication called *The Mask of Sanity*. In this publication, Cleckley devised a checklist of symptoms of the individual suffering from a psychopathic disorder. These symptoms included superficial charm, intelligence, unreliability, malingering, lack of remorse and shame, lack of motivation, lack of delusions, narcissism, trivial sex life, and lack of long-term goals. Many scholars agree that not all serial killers exhibit all of these qualities. To the

contrary, some serial killers actually do experience remorse. To extinguish the guilt, they negate their feelings or rationalize their behavior.

Based on Cleckley's observations, Hare (1991) revised the psychopathy checklist. He argued that psychopaths exhibit superficial charm, narcissism, pathological lying, manipulation, lack of remorse and guilt, shallow affect, lack of empathy, and failure to accept responsibility for their actions. The psychopath's lifestyle is described as parasitic and prone to boredom, with poor behavioral controls, lack of long-term goals, impulsivity, irresponsibility, juvenile delinquency, promiscuous sexual behavior, short-term marriages, and criminal versatility.

Current scholars contend that serial killers may exhibit some of these traits, but not all of them. Psychopathy is a broad category that should not be used to describe serial killers due to the variety of types of offenders. Today, psychologists have replaced the term psychopathy with *antisocial personality disorder*. The common pathology among serial killers tends to reflect a high degree of anger, hostility, frustration, low self-esteem, and feelings of inadequacy (Hickey, 1997).

Fox and Levin (1994) suggested that rather than suffer from psychopathy, many serial killers possess psychological facilitators for neutralizing guilt and remorse.

> They are able to compartmentalize their attitudes by conceiving of at least two categories of human beings—those whom they care about and treat with decency, and those with whom they have no relationship and therefore can victimize with total disregard for their feelings. (p. 44)

Fox and Levin (1994) also asserted that compartmentalization is a method used by serial killers to separate themselves from their crimes. However, compartmentalization is learned and used by individuals in their everyday roles. Individuals separate the positive and negative aspects of their personalities and create two separate selves, one who may be a cutthroat businessman at work whereas the other is a loving husband and father.

In his book *The Nazi Doctors*, Lifton (1986) examined how Nazi physicians were able to conduct horrendous experiments on Jews in the concentration camps. Through his research, the author suggested the doctors similarly compartmentalized (Lifton referred to it as "doubling") their activities and attitudes. They developed one self for conducting experiments and another for their lives outside of the camps.

Fox and Levin (1994) contended that along with compartmentalization, dehumanization is another neutralization method learned by serial killers. Dehumanization is another psychological process that effectively permits killing without guilt. Lifton's (1986) study concluded that the physicians were also able to convince themselves that their victims were less than human. Jews were viewed as subhumans of whom the world needed to be rid. Therefore, these nonhumans were expendable and could be sacrificed for the sake of scientific inquiry. In

the United States, similar collective definitions of subhumanity were used as justifications for the enslavement, segregation, and violence against African Americans.

In the case of serial killers, dehumanization is often used when selecting the victims. Prostitutes, homosexuals, and the homeless are viewed by serial killers as subhuman elements of society. However in some cases, dehumanization does not occur until after victims have been captured. Victims then become objects that serial killers can rape, torture, mutilate, and eventually murder (Fox & Levin, 1994).

Serial killers may suffer from personality disorders. However, some scholars believe the behavior they exhibit can also be learned in different environments. The next section will explore the military as an environment that promotes violence and teaches individuals to kill.

TEACHING SERVICEMEN TO KILL

Some scholars propose that the military provides the social context where servicemen learn aggression, violence, and murder. Grossman (1996), a military expert on the psychology of killing, discusses these methods in *On Killing: The Psychological Cost of Learning to Kill in War and Society*. Grossman coined the term *killology* to describe a new interdisciplinary field: the study of the methods and psychological effects of training military recruits to circumvent their inhibitions to killing fellow human beings.

Grossman (1996) noted that previous military research showed that servicemen were not very inclined to kill. During the Civil War, only a tiny percentage of servicemen fired to hit, whereas the vast majority fired over the enemy's head. A team of researchers, studying what servicemen did in battle during World War II, discovered that only 15% to 20% of individual servicemen were able to fire at an exposed enemy. Considering this unwillingness to kill in battle a problem, the military adopted different techniques in an attempt to increase this percentage. By the time of the Korean War, the rate of servicemen willing to fire to kill increased to 55%. During the Vietnam War, the rate had risen to more than 90% (Grossman, 1996).

Grossman (1996) stated that today, the military uses various training methods to increase the killing rates of servicemen, including brutalization, classical conditioning, operant conditioning, and role modeling. Brutalization and desensitization to violence are first encountered at boot camp. Cadets are verbally and physically abused by superiors for the entire duration of boot camp. Cadets also lose all individuality by being forced to act and dress alike. The author reports that this brutalization is designed to break down existing mores and norms and to accept a new set of values that embrace violence and death as a way of life. Cadets eventually becomes desensitized to violence and accepts it as a normal and essential survival skill.

Classical conditioning is also used by the military so that servicemen learn to associate violence with pleasurable consequences. Grossman (1996) provided an example of the Japanese using classical conditioning during World War II. The Japanese placed Chinese prisoners in a ditch with their hands bound. A few Japanese servicemen would go into the ditch and kill their prisoners with a bayonet. Groups of young servicemen were placed on the banks to watch and cheer on the other servicemen. Afterward, the servicemen who watched were treated to nice meals and prostitutes. The Japanese found these techniques to be effective in enabling very large numbers of servicemen to commit atrocities, thus associating pleasure with death and suffering.

Operant conditioning, the procedure of repetitive stimulus-response reinforcement chaining, is also used by the military to condition servicemen to react a certain way. An appropriate example of operant conditioning by the military is the use of flight simulators to train pilots. When pilots are flying and experience a problem, they will react reflexively due to the hours of training on the flight simulator (Grossman, 1996).

Grossman (1996) also suggested that conditioned responses are beneficial in various ways. Servicemen and police officers, for example, are trained to shoot at man-shaped targets. This is the stimulus. The conditioned response is to shoot the target. The trainees repeat these procedures many times. Later, servicemen and police officers will reflexively shoot to kill when faced with the same situation.

According to Grossman (1996), role models are also used by the military. Servicemen are provided immediate role models, their drill sergeants. Drill sergeants personify violence and aggression, and servicemen strive to be like their role models. Dehumanization also contributes to servicemen learning to kill. Enemies are viewed as subhuman and become objects. The learned, conditioned responses take over, and servicemen then become killers (Grossman, 1996).

Unfortunately, only one empirical study has examined the possible link between serial murder and military experience. Using data collected from 354 previously identified case studies, Castle (2001) identified 25 American serial killers with previous military experience. Thus, approximately 7% of all the serial killers identified in her study had a military background. In the next section, we apply learning theory to serial murder with a special emphasis on military experience.

APPLYING LEARNING THEORY TO SERIAL MURDER

Learning theorists contend that deviant and criminal behavior that can be learned can also be unlearned. Although there are many criticisms of learning theory, it is still used today by researchers. Serial murder is one area to which scholars have attempted to apply learning theory. Hale (1993) suggested that serial murder is a crime that can also be learned.

Hale (1993) noted that the internal drives of a serial killer are often overlooked as motivation. Previous case studies of serial killers suggested that killers' victims often resemble persons who caused the killers humiliation. Hale proposed that early humiliation in the lives of serial murderers can eventually translate into criminal behavior. This happens, however, only if killers recognize and internalize the humiliation as a motive.

Hale (1993) used Amsel's (1958) frustration theory to explain how killers internalize the perceived wrong and use it as a justification for murder. Based on this theory, killers associate certain cues from the situation in which the humiliation initially occurred with the later humiliation. The later or current humiliation is referred to as a nonreward situation. Nonreward presented in a situation in which reward previously occurred produces an unconditioned frustration response. The cues that are present during the humiliation become conditioned to produce an anticipatory frustration response. This response also produces a distinctive internal stimuli, which motivates the individual to avoid potentially humiliating situations in the future.

The Hull (1943) and Spence (1936) theories of discrimination learning explain why killers are not able to discriminate one instance of humiliation from another. Situations in which killers have experienced a reward (reinforcement) allow them to discriminate between stimuli and choose the behavior that produces the reward. However, killers have experienced very few, if any, situations that produce a reward. Therefore, in all situations in which the cues indicate a potential humiliation to the killers, the killers associate them with a nonreinforcement situation. The abundance of these nonreinforcement situations does not allow killers to discriminate one situation from another.

Hale (1993) also uses Dollard and Miller's (1950) theory of learning to explain why killers "instigate" a certain behavior. An instigated behavior is a behavior where the predicted response is the consequence. This consequence has been observed or inferred by the individuals. The behavior may be instigated to seek approval or some other desired goal. Frustration occurs when a barrier prevents the individuals from reaching the desired goal.

This frustration is the result of a basic impulse or drive being blocked. The aggressiveness is blocked but must eventually be released. The aggressive impulses may be released indirectly through displacement to less threatening objects. Using Freud's idea of transference, Dollard and Miller (1950) suggested responses may be transferred from one object to another through generalization.

In the application to serial murder, killers are under the control of individuals who originally caused the humiliation. Killers may release the frustration and aggression on the original individuals. However, the control and humiliation often prevents killers from doing this. Therefore, the humiliation becomes internalized and is not corrected. Through generalization, killers transfer this internalized humiliation to their victims in an attempt to rectify the past humiliation (Hale, 1993).

Hale (1993) focused on the internal drives of killers in applying learning theory to serial murder. Based on previous case studies that report killers' victims often resemble someone who caused them humiliation, Hale suggested that the early humiliation can eventually translate into criminal behavior. Killers internalize a perceived wrong and use it as a justification for murder. The abundance of nonreinforcement situations makes it impossible for killers to discriminate one situation from another. Eventually, killers, using generalization, transfer internalized humiliation to their victims. The killers are unable to discriminate between different stimuli. Hale asserted that this transference occurs only if killers recognize and internalize the humiliation as a motive for the murders. However, although most victims have some symbolic value for the killers, not all of the victims resemble someone from their past.

Hale (1993), like other learning theorists, contended that serial murder can be unlearned. Killers are unable to discriminate or specify the differences and similarities between comparable stimuli. Serial killers are confusing cues from the past with ones in the present. Therapy may be able to help serial killers identify these faulty generalizations and expand their learning processes (Hale, 1993).

Burgess and Akers's (1966) theory of differential association-reinforcement follows the logic of operant principles while acknowledging the cognitive processes that contribute to such associations. The principles of their learning theory as well as contributions by Grossman (1996) can be applied to serial killers who have served in the military. Although branches, ranks, and types of military service may differ among the cases, military boot camp provides a common social context in which servicemen can transfer violence and aggression into learning how to kill. War and combat experience may help to strengthen or reinforce the behavior; however, the learning experiences provided in boot camp are sufficient.

The first principle of Burgess and Akers's (1966) theory asserted that deviant behavior is learned according to the principles of operant conditioning. This repetitive procedure of stimulus response conditions servicemen to react in a certain way. Grossman (1996) gave examples of how this is used in the military, including training pilots on flight simulators and conditioning servicemen to shoot at man-shaped targets.

The behavior can be learned in nonsocial situations where the behavior is either reinforcing or discriminating and through social interactions of other persons where their behavior is observed to be reinforcing or discriminating. The likelihood that the behavior will be repeated in the future is governed by positive and negative reinforcement. Killing in the military or eliminating the enemy threat is deemed an essential survival tool. Servicemen are positively reinforced for this behavior. Servicemen also are exposed to the interactions of other servicemen being reinforced for their behavior. Grossman (1996) discussed this in his study, contending that the military uses positive role modeling and that the role models usually represent people who personify violence and aggression.

The principal part of learning deviant behavior occurs in the groups that control individuals' major source of reinforcements. When individuals enter the military, that group becomes the individuals' major source of reinforcements. As Grossman (1996) reported, brutalization is a technique used by the military to break down individuals' existing mores and norms and to embrace violence and aggression as a new way of life. The military then becomes the individuals' primary social group.

The specific techniques, attitudes, and avoidance procedures of deviant behavior are learned in reinforcing situations. Servicemen learn not only to accept death and killing as a way of life but also the techniques of killing and the attitudes that reinforce this type of behavior. Dehumanization and compartmentalization are also learned as methods to neutralize remorse and guilt. Servicemen are taught there are two groups of people, fellow servicemen and enemies. Enemies are viewed as subhuman, which neutralizes the guilt of killing them.

Fox and Levin (1994) discussed how serial killers use these two techniques. Dehumanization is used by serial killers to objectify their victims. This may occur before the victim is captured or afterward to neutralize any guilt associated with torture, rape, or murder. Compartmentalization is also used by serial killers to allow them to have a life outside of the killing. Some serial killers are able to maintain families or other relationships with people they do not kill. They are able to separate the two different parts of their lives. These skills may be learned by serial killers in the military and transferred into civilian life.

The potential for persons to commit deviant behavior is increased in situations where the presence of normative definitions and verbalizations over conforming behavior have acquired discriminatory value. In the military, servicemen learn that killing is a normal and accepted way of life for servicemen. Serial killers learn that conforming to behavior in the military is to embrace a way of life that encourages violence and aggression. This way of life is not considered conforming behavior in civilian life, although killing is defined as normal in the military. This behavior has been reinforced in the military, and serial killers apply these learned skills in civilian life.

Finally, the strength of deviant behavior is a direct function of the amount, frequency, and probability of its reinforcement. Violence and aggression are continuously and consistently reinforced in the military. Servicemen learn that these values will be positively reinforced. Although the specific reward changes, serial killers murder because it provides them with some kind of reinforcement. However, as Holmes and Holmes (1994) pointed out when describing the cyclic nature of serial murder, the ritual often leaves serial killers depressed and unsatisfied. Serial killers begin the cycle again, believing that this will cure the depression. As serial killers continue to cycle, very rarely do the murders leave the killers feeling satisfied or rewarded. Yet, the behavior has been frequently reinforced; therefore, it is more likely to be repeated in the future.

CONCLUSION

Although serial murder has existed for hundreds of years, the study of serial murder remains in its infancy. Scholars have endeavored to study serial murder by focusing on biological, psychological, and sociological factors. Some of these studies have provided support in hindsight for these various factors by noting their evidence in the case histories of serial killers. However, none of these factors exist in all cases of serial murder.

The general theory of social learning, as formulated by Burgess and Akers (1966), was applied to show how the military provided a social group through which potential or future serial killers learn the skills and neutralization techniques of killing. Grossman's (1996) research in the military on the psychology of killing supports the idea that murder, like other forms of crime and deviant behavior, can be learned. Although researchers have used social learning theory to support crime and deviant behavior, Hale (1993) was the first scholar who attempted to apply learning theory to serial murder.

Like other variables previously considered in the study of serial murder, military experience is not present in all cases. Therefore, the military may be just one social group that provides the serial killer with the associations and reinforcements necessary to learn how to kill. However, future serial killers may be attracted to military service for this reason. As the study of serial murder remains a new area of research, future studies might examine this relationship further.

REFERENCES

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

Amsel, A. (1958). The role of frustrative nonreward in noncontinuous reward situations. *Psychological Bulletin*, *55*, 102-119.

Brizer, D. A., & Crowner, M. (1989). *Current approaches in the prediction of violence*. Washington, DC: American Psychiatric Press.

Brooks, P. R., Devine, M. J., Green, T. J., Hart, B. L., & Moore, M. D. (1988). *Multi-agency investigation team manual*. Washington, DC: U.S. Department of Justice.

Burgess, R. L., & Akers, R. L. (1966). A differential association: Reinforcement theory of criminal behavior. *Social Problems*, *14*, 128-147.

Carlisle, A. L. (1993). The divided self: Toward an understanding of the dark side of the serial killer. *American Journal of Criminal Justice*, *17*(2), 23-36.

Castle, T. (2001). *A case study analysis of serial killers with military experience: Applying learning theory to serial murder*. Unpublished master's thesis, Morehead State University.

Cleckley, H. (1976). *The mask of sanity* (5th ed.). St. Louis, MO: C. V. Mosby.

Craft, M. (1966). *Psychopathic disorders and their assessments*. Elmsford, NY: Pergamon.

Dollard, J., & Miller, N. E. (1950). *Personality and psychotherapy*. New York: McGraw-Hill.

Egger, S. A. (1990). *Serial murder: An elusive phenomenon*. New York: Praeger.

Egger, S. A. (1998). *The killers among us: An examination of serial murder and its investigation*. Englewood Cliffs, NJ: Prentice Hall.

Fox, J. A., & Levin, J. (1994). *Overkill: Mass murder and serial killing exposed*. New York: Plenum.

Gerberth, V. J., & Turco, R. (1997). Antisocial personality disorder, sexual sadism, malignant narcissism, and serial murder. *Journal of Forensic Science*, *42*, 49-60.

Grossman, D. (1996). *On killing: The psychological cost of learning to kill in war and society*. Little Rock, AR: Brown.

Hale, R. L. (1993). The application of learning theory to serial murder or "You too can learn to be a serial killer." *American Journal of Criminal Justice*, *17*(2), 37-45.

Hare, R. D. (1991). *The hare psychopathy checklist-revised*. Toronto, Canada: Multi-Health Systems.

Hickey, E. W. (1997). *Serial murderers and their victims* (2nd ed.). Belmont, CA: Wadsworth.

Holmes, R. M., & DeBurger, J. (1988). *Serial murder*. Newbury Park, CA: Sage.

Holmes, R. M., & Holmes, S. T. (1994). *Murder in America*. Thousand Oaks, CA: Sage.

Hull, C. L. (1943). *Principles of behavior*. New York: Appleton.

The insanity plea: A futile defense for serial killers. (1993). *Law and Psychology Review*, *17*, 193-208.

Johnson, B. R., & Becker, J. V. (1997). Natural born killers? The development of the sexually sadistic serial killer. *Journal of American Academy of Psychiatry and Law*, *25*, 335-348.

Lewis, D. O. (1998). *Guilty by reason of insanity*. New York: Ivy.

Lifton, R. J. (1986). *The Nazi doctors*. New York: Basic Books.

Newton, M. (2000). *The encyclopedia of serial killers*. New York: Checkmark.

Norris, J. (1988). *Serial killers*. New York: Doubleday.

Schechter, H., & Everitt, D. (1996). *The a to z encyclopedia of serial killers*. New York: Pocket.

Spence, K. W. (1936). The nature of discrimination learning in animals. *Psychological Review*, *44*, 430-444.

Wishnie, H. (1977). *The impulsive personality*. New York: Plenum.

Tammy Castle, M.A.
Doctoral Student
Department of Criminology
Indiana University of Pennsylvania
USA

Christopher Hensley, Ph.D.
Director
Institute for Correctional Research and Training
Morehead State University
USA